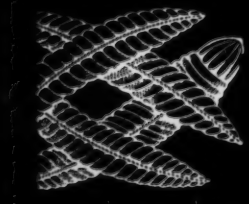
ENGINEERING NEWS-RECORD



ıral Ben Moreell

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LOCK GATES "CRACKED" ELECTRONICALLY

To Prevent Water Surges!

AT CHICAGO, G-E THY-MO-TROL DRIVE AUTOMATICALLY CONTROLS GATES OVER A 25-1 SPEED RANGE

Speed and timing controls are combined with starting push buttons in this G-E Thy-mo-trol control station.

Timing the operation of lock gates in the Chicago River to prevent excessive current and turbulence was once a ticklish job. Two drive motors were used — one to "crack" the gate at low speed during the period when the varying water levels equalized themselves, and another for high-speed operation. This twin-motor and gear arrangement was not smooth in operation and it required considerable maintenance. It was necessary for the operator to manually supervise the gate opening, operating the gate at low speed until the water levels became adjusted, and then shifting to high speed. This method called for extreme care and attention during the entire operating cycle.

Thy-mo-trol makes speed control automatic

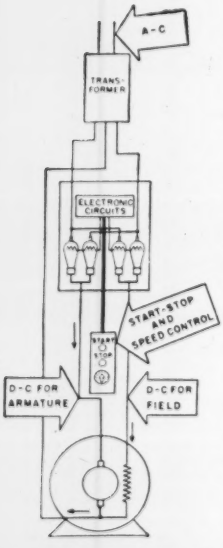

Diagram of Thy-mo-trol drive. Separate rectifier tubes supply d-c power to the motor field and d-c power to the armature.

Today, one leaf of one lock gate is opened and closed by a G-E Thy-mo-trol electronic drive and a single d-c motor, the speed of which is precisely and automatically controlled. To open the gate without hazardous water current, the operator simply sets a speed dial and a timer on a convenient panel and presses a push button. The drive motor starts at the low speed of 70 rpm to permit "cracking" of the gate and safe water equalization, and then accelerates to the high speed of 1750 rpm to complete the opening. When the gate is fully opened, the drive de-energizes itself. To close the gate, the cycle is reversed, with a smooth, final closing of the gates at a slow speed. Control is fast, completely automatic and always precise, despite the broad speed range.

D-c performance from a-c power

Wherever you have an a-c power source and you want the versatile, efficient control of speed and torque afforded by d-c motors, G-E Thy-mo-trol drive is a wise choice. We suggest you consider its basic advantages when specifying drives for conveyors, winches, lathes, material testing machines, pumps, and other driven machines. Standard drives are available from ⅛ to 25 hp. For complete details, write for Bulletin GEA-4025. Apparatus Dept., General Electric Company, Schenectady 5, N. Y.

GENERAL ELECTRIC

655-55-8030

THY-MO-TROL DRIVE

- *Fast stops with dynamic braking*
- *Smooth, fast constant-current acceleration*
- *Preset speeds*
- *Constant speed under changing loads*
- *No stop for speed change*
- *Low Maintenance*

News of the Week

ENGINEERING NEWS-RECORD • JULY 18, 1946 • VOLUME 137 • NUMBER 3

OWMR raises 1946 building estimates to $17 billion

Director's quarterly report boosts total expected from $14 billions forecast earlier—Cites housing activity, general construction as outrunning March estimates

Construction activity this year will total about $17 billion, instead of $14 billion as originally estimated in March by federal agencies (*ENR* March 21, vol. p. 396), Director John Steelman of the Office of War Mobilization and Reconversion reported July 11 in his quarterly report to the President.

Much new housing

New construction valued at more than $3 billion—of which one-third represents housing—was put in place in the first five months of 1946, the report reveals; a breakdown of private non-residential construction during the first half of 1946 is given in the accompanying table.

Reasons given for revising the expected 1946 total upward are: (1) Current construction is at a higher level than in any similar period since 1943, when war construction accounted for the major part of building activity; (2) housing construction, based on value in place, is greater than for any similar period in the last seven years, and in the number of starts is nearing record proportions; and (3) construction activity of all kinds is proceeding at a faster pace than was thought possible earlier in the year.

Problems lie ahead

The large building activity now in progress faces serious problems which must be tackled "promptly and with courage," the report states. The one listed as most important is that of increasing the supply of building materials to a level which will permit the needed volume of construction activity to be carried on not only in home building but in all types of construction.

The report further reveals that labor shortages are beginning to appear in certain crafts in the building trades in a number of scattered areas, that apprenticeship programs have not yet had time to prove effective in providing additional labor but are expanding rapidly, and that an extensive black market has diverted large quantities of building materials from essential uses. (*ENR* July 4, vol. p. 1). Continued progress also requires firm price control over some types of construction and an accelerated rate of production of materials, Mr. Steelman's report stated.

Gains in construction

The bright factors pertaining to the construction program were listed as follows: (1) Production of most essential building materials has been substantially increased, and the rate of production is still climbing; and (2) materials production is being encouraged successfully through various types of government assistance, including premium payments.

However, the report stresses that it will be necessary for some time to keep the severe curbs on construction now in force. This action will be necessary, it is stated, to prevent misuse of the HH ratings and other priorities now in effect, or which are planned to aid the veterans housing program.

Construction starts on New York "Thruway"

Work on New York State's 486-mile, $202,000,000 Thruway (*ENR* Dec. 13, 1945, vol. p. 773) formally got under way July 11, after ground-breaking ceremonies on the first section of the proposed roadway at Liverpool at the north end of Onondaga Lake near Syracuse.

Employees of the D. W. Winkelman Co., Inc., Syracuse, contractor, for the first section, began preliminary grading on a 3.46 mi. stretch of the highway there.

Expected to require five years for construction, the road will be a six-line highway, embodying latest free traffic flow designs, that will span the state from the New York-New Jersey border on the Hudson river to Lake Erie and the Pennsylvania border on the west.

K. M. Cameron retires, Canadian works head

Kenneth M. Cameron, past president of the Engineering Institute of Canada, is retiring as chief engineer of the department of public works of Canada, after 23 years. A graduate of the Royal Military College and of McGill University, Cameron joined the department in 1908. In 1912 he went to Ottawa as senior assistant engineer in the dredging branch and in 1918 was appointed assistant chief engineer.

Under his direction many large works have been carried out, including the St. John drydock at St. John, N. B., and the Esquimalt drydock at Esquimalt, B. C.

NON-RESIDENTIAL BUILDING
(MILLIONS OF DOLLARS)

	Value In Place		
	1st Quarter	2nd Quarter (Including Preliminary June Figures)	Value of Remaining Work On Projects Started*
Industrial	$332	$402	$808
Warehouses, office buildings, lofts	40	71	181
Stores, restaurants, garages	170	262	226
Religious	12	16	47
Educational	18	27	77
Social and recreational	17	32	63
Hospitals and institutional	13	18	49
Hotels	7	11	37
Miscellaneous	30	28	23
Total	$639	$871	$1,484

* The totals for remaining work are preliminary estimates, and they are in addition to the value put in place, shown for the first and second quarters.

NEWS IN BRIEF

In telegraphic form, here are latest news developments on the engineering and construction front during the week.

Construction—Additional construction work of about $3,219,000 for the Craig Colony for Epileptics at *Sonyea, N. Y.*, has been approved by the N. Y. State Postwar Public Works Planning Commission. . . . A $1,200,000 swimming pool program has been proposed at *Toledo, Ohio*. . . . Diamond Alkali Co. will build a $6,000,000 electro-chemical plant near *Houston, Tex.* . . . Southern Methodist University, *Dallas, Tex.*, has announced a $3,250,000 building program to start when materials conditions make it possible. . . . *Guelph, Ont.*, has $70,000 available for a swimming pool. . . . Wade Tower, an 18-story building, will be erected on University Circle, *Cleveland, Ohio*, next year. . . . In *Missouri*, Gov. Phil M. Donnelly has signed bills authorizing a $10,733,000 dormitory construction program at various state-supported educational institutions.

Housing—*Camp Shanks, N. Y.*, embarkation and redeployment center, will be transformed into an emergency housing project for veterans and servicemen of the N. Y. City area. . . . While *Columbus, Ohio*, is sponsoring 399 dwelling units for veterans in Greenlawn Field and Maryland Park, *Franklin County* authorities plan to sponsor a similar project just outside the city to consist of 100 units. . . . To cost over a million dollars, a 128-family apartment house is planned at *Lexington, Ky.*. . . . The Home Builders Association of *Maryland* charged that the veterans' home building program is "bogging down through the government's failure to break building materials bottlenecks." . . . A $6,000 to $7,000 pre-fabricated concrete home is being introduced by a *Pittsburgh, Pa.*, concern. Insulated walls will be made in slabs 8x12½-ft. hauled to the building site, and erected. Insulated roof will be pre-fabricated aluminum or sheet metal. Total floor area 625 sq. ft. Crane crew should erect two homes per day.

Sewers and Water Supply—*Joliet, Ill.*, is considering a $3,500,000 sewage disposal plant and sewer and water supply extensions. . . . The Colorado River Municipal Water Association has been formed to furnish water to *Big Spring, Snyder, Midland, Colorado City* and *Odera, Tex.* . . . Plans are being drawn for the first phase of a $140,000 sewer extension program at *Spring Valley, Ill.* . . . *Little Rock, Ark.*, has begun modernizing its water distribution facilities.

Highways—A $3,500,000 budget has been approved for the upkeep of *South Carolina's* roads during the next fiscal year. . . . Construction on the first two units of a proposed $7,000,000 highway program in five counties near *Fresno, Calif.*, is expected to start next month. . . . Road building in *Quebec* province is being hampered by lack of machinery and technical workers. . . . Contracts totaling $3,000,000 have been awarded for work on the Penn-Lincoln Parkway East at *Pittsburgh, Pa.* . . . Low bids totaling $2,613,919 have been received for 42 road projects in *Missouri*. . . . *Louisiana* contractors July 3 submitted 70 bids on 18 highway projects to cost over $1,000,000. . . . *Washington* State has 73 projects under way at a total cost of $9,158,788. . . . In *West Virginia* contracts totaling $5,255,900 for new road construction, surfacing, etc., in 46 of 55 counties were awarded in the Jan.-June period. . . . On July 1 a total of $4,680,512 was distributed to *Wisconsin* counties as their annual state aid for trunk highway maintenance and improvement . . . *Nova Scotia* will build 170 miles of roads this year. . . . So far this year, *Arkansas* has let over $7,000,000 in road construction contracts. . . . Construction on *Maryland* roads costing $17,000,000 under way or to be placed under contract before the end of the year, will be the largest amount ever done at one time in the state's history.

Miscellany—Bids are being accepted for the lease of sub-surface space in St. Mary's Square, *San Francisco, Calif.*, for auto parking. . . . Legislation is being drafted for the construction of a second under-harbor tunnel from *Boston* to *East Boston, Mass.* . . . Construction of a million dollar bridge to carry the Reading Railroad over the Schuylkill River at *Reading, Pa.*, has been approved by the Pennsylvania Public Utility Commission. . . . The Bushman Construction Co., St. Joseph, Mo., at $1,585,000 was low bidder on the construction of a vehicular bridge across the new Chain of Rocks canal in *Madison County, Ill.* . . . CPA has refused to authorize a new $1,650,000 court house in *Clayton, Mo.*, at present because of building materials shortage, and at *Phoenix, Ariz.*, work on the conversion of a CCC barracks into emergency dwelling units for veterans has been ordered halted because of expenses, city officials said.

Extensive park plans for St. Louis County, Mo.

With tentative plans for between $7,000,000 and $11,000,000 worth of construction for parks and scenic drives in St. Louis County, Mo., the county's planning commission has endorsed the proposal of Presiding Judge L. F. Matthews that the county should request a grant of $35,000 from the Federal Works Administration to finance the early surveys and plans for the project.

The original plans were prepared by the planning commission. They included a 62-mile Peninsular Parkway to run from Riverview Boulevard near the St. Louis water works plant on the Mississippi River north of St. Louis to Jefferson Barracks via Creve Couer Memorial Park and Babler State Park, with auxiliary parkways at various points.

The tentative plans also include provision for nine major parks and some 70 athletic and recreational grounds in different parts of the county.

Chief Engineer creates Caribbean district

A new Army Engineer District, designated as the Caribbean district, has been established by Lieut. Gen. Raymond A. Wheeler, Chief of Engineers.

The new district will be under the jurisdiction of the Division Engineer, South Atlantic Division and will have jurisdiction over all military construction and military real estate matters for which the Chief of Engineers has a direct responsibility, within the geographical boundaries of all United States territories, possessions and leaseholds in the Caribbean Defense Command.

Included will be the area of the present Puerto Rico District and such other localities as may be specifically assigned. The responsibility for all civil works functions in this area is transferred to the District Engineer, New York district, and the office is redesignated the Puerto Rico sub-office of the Caribbean District for construction and real estate matters.

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$50 million Texas construction blocked as unions, contractors fail to agree

Houston building work shut down by three-way strike—Other labor developments indicate minor disturbances

Houston, Tex., building contractors, suppliers and labor union members remained deadlocked July 12 as a month-old strike brought more than $50,000,000 worth of work in the city to a dead stop. The building trades strike—complicated by a parallel shutdown by suppliers and contractors, appeared to be the only major disturbance in the construction field during the week, although several minor disputes also were reported.

The strike in Texas' largest city started June 13, when the Houston Building Trades Council ordered its men off construction jobs to force recognition of the Teamsters and the International Hod Carriers Unions. Contractors rejected recognition of the unions, on the grounds that such recognition would force all truck drivers and common laborers to join the two unions; and charged that labor leaders sought control over sales of materials to contractors.

On its first day, the strike closed down some $23,000,000 worth of work, including a 24-story downtown skyscraper for the City National bank, and several housing projects—and by July 12 had closed down work estimated to cost $50,000,000.

"Seeking to bring the strike to a head", contractors on June 19 voted to shut down all construction operations; and by July 2 almost all suppliers in the city also shut down their business.

Building men estimated that some 7,000 workers are now out of work. Unions and contractors organizations held two meetings without result with federal conciliators July 11, and the strike continued.

Other disturbances

Other labor disturbances reported during the week appeared to be localized. At Cleveland, Ohio, a month-old strike of union carpenters was settled July 11, when city contractors' groups signed agreements with the AFL carpenters' district council, providing pay of $1.90 per hour, $1 per day retroactive payments to March 1, and union assignment of craftsmen.

At Charlotte, N. C., Philip T. Williams, executive manager of the Carolinas Branch, Associated General Contractors of America, said that because of the "large number of complaints" by members of non-compliance with government wage regulations by their competitors, a special inspection drive is being conducted among contractors and builders in the Carolinas, preliminary to a general compliance campaign.

Mr. Williams said he had been informed that the enforcement branches of the Wage Stabilization Board and the United States Department of Labor's Wage and Hour Division plan vigorous enforcement measures against violators, where warranted.

The Building and Construction Trades Department of the American Federation of Labor has agreed "to use every means within its power to bring about a settlement of any industrial conflict that may arise and to prevent stoppage of work on any housing construction" in a memorandum of understanding recently signed with Wilson W. Wyatt, Housing Expediter and Administrator of the National Housing Agency.

Mr. Wyatt, under the agreement, appointed a Construction Labor Advisory Committee nominated by the department which will "advise him on labor policies and procedures relating to construction and construction standards."

The municipal housing committee of St. Paul, Minn., acted July 2 to intervene in the month-old strike against 16 Twin Cities sash and door factories.

***Pedestrian, Equestrian Bridge**—Unusual in design is this combined equestrian and pedestrian bridge spanning a freeway in Balboa Park, San Diego, Calif. Built of reinforced concrete, with a single-column, single girder design, the structure has two main spans 73 ft. long, with 19-ft. cantilevered end spans. The 18-ft. overall width will accommodate a 4-ft. walkway and a 10-ft. bridle path for park use.*

Fuller Co. will handle surplus disposal in Utah

Appointment of the George A. Fuller Co., New York City, to act as agent for the War Assets Administration in the disposal of Army and Navy surplus materials in Utah has been announced. This is the first major disposal contract made with a private organization.

At the Navy Supply depot at Clearfield and the Army Service Forces depot at Ogden, about 280,000 tons of materials —including heavy construction equipment—are on hand, valued at approximately $120,000,000. Materials are coming into the depots at the rate of about $15,000,000 per month, so that the coming year the volume of disposal at the Utah agency is expected to approach $300,000,000.

An administrative office will be established at Salt Lake City. Prices for the materials will be established by the WAA; and all of the conditions of disposal will be controlled by the Surplus Property Act of 1944, which prescribes priorities and procedures.

Final survey started for Whitney Dam, Texas

The final construction survey has been started for the $26,000,000 Whitney Dam —to be built 38 miles from Waco, Tex., on the Brazos River. Actual construction work on the dam will begin this year, according to Col. David W. Griffith, U. S. Army Engineers, of the Galveston district. The buying of land for the dam site is scheduled to begin immediately.

Mark Haima has been named resident engineer for the project and has set up his headquarters at Hillsboro.

Test borings being made for Canso, N. S., bridge

Surveys and test borings costing $60,000 are being conducted across the Strait of Canso according to an announcement to the Canadian House of Commons by Lionel Chevrier, Minister of Transport, under whose department the work is being carried out.

The Strait of Canso is a narrow stretch of water separating Cape Breton Island from the mainland of Nova Scotia. The island has large coal mines and steel works. Transport at present is by boat, including some large train ferries. A bridge across the strait has long been urged and the present surveys are being carried out in connection with the preparation of designs for an actual structure.

DEVELOPMENTS BEYOND U. S. BORDERS

Digested from reports by Engineering News-Record correspondents and the McGraw-Hill World News Bureau

Peru plans major hydro dam—Dutch announce world's largest lock again in operation—Housing programs projected by many nations

Peru—Government engineers now are surveying a site on the Maranon River in northern Peru for construction of a hydro-electric project that would develop 4,000,000 hp.—among the largest power installations in the world.

The dam would be located in the Pongo de Manseriche—or Manseriche Narrows—near the town of Borja. At that point the river moves through a narrow gorge only 230 ft. wide.

Meanwhile, Peru's first major hydro project is now under construction on the Santa River, 90 miles inland from the Pacific port of Chimbote (*ENR* Sept. 21, 1944, vol. p. 360) where an estimated 126,000 kw. are expected to be produced. Shortages of materials have delayed work, but Peruvian engineers said cost will be about $66 per installed kilowatt when the project is completed. The Santa station is part of a regional development program which includes irrigation of 250,000 desert acres, exploitation of coal resources, and possible industrial development.

Mexico—Electricity supplies for the Federal District of Mexico City and several adjoining communities will be augmented with the installation of a 62,000-hp. plant at Ixtapantongo, at a cost of about $5,162,000. A hydro installation, the plant will include a tunnel to bring water from the Santa Barbara River. The federal government, through the Federal Electricity Commission, already operates one generating plant at Ixtapantongo.

Transport . . . .

Netherlands—Barring unforseen accidents, the provisional restoration of the north lock at Ijmuiden—said to be the world's largest lock—will be completed by the end of July to permit the largest ocean liners to reach the port of Amsterdam through the North Sea Canal.

Built between 1923 and 1930, the lock is 1,320 ft. long, 165 ft. wide and 48 ft. deep; resting on some 20,000 concrete piles. Its gates—each containing 1,250 tons of steel, are 63 ft. high, 24 ft. wide and 177 ft. long. German demolition squads damaged the 60-ft.-deep pens into which the gates are withdrawn, and destroyed winches and other operating machinery.

Chile—With several major highway programs under way, Chile is concentrating on making an all-weather road of the 1,000-mi. link of the Pan American Highway which traverses the nation's length. The road is now passable over its entire length in Chile, but is not hard-surfaced throughout.

Argentina—The government has decided to build six major airports during the current year—at Cordoba, Salta, Resistencia, Comodoro Rivadavia, Formosa and Clorinda—at a total cost of about $1,000,000.

Housing . . . .

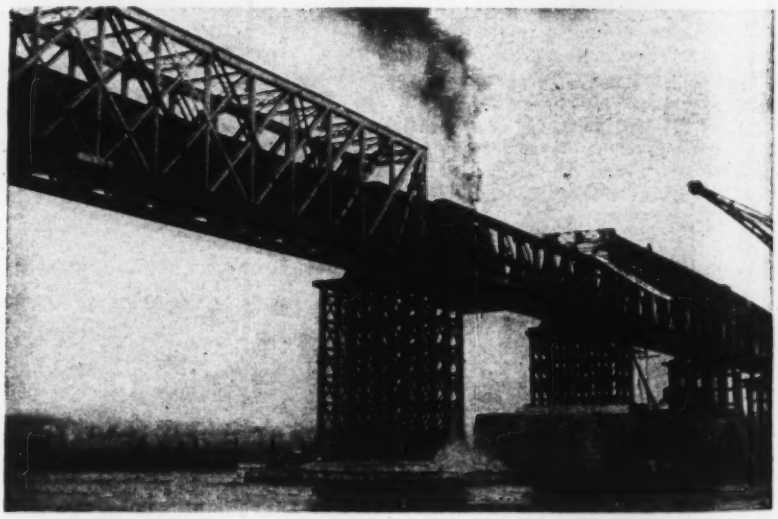
British West Indies—Construction of a total of 1,000 workers' homes at a cost of about $2,000,000 is planned for the near future. Each unit will contain a living room, shower, kitchen and one to three bedrooms. Rentals will be held low, with the government absorbing any losses which may occur.

Venezuela—The Venezuelan Banco Obrero is now retaining U. S. technicians to assist in a 40,000-home construction program that calls for building 4,000 dwelling units in 14 towns and cities during 1946. Most of the structures will be one-story, row-type units to be sold to workers at low interest rates.

England—Birmingham continues to lead all English cities in number of houses erected by private enterprise. By the middle of June, 553 homes had been completed to first-floor level, 466 up to the eaves, 393 roofed in, and 136 delivered as complete.

Meanwhile, the British government has appointed a Housing Production Executive Committee, consisting of the ministers of five departments concerned, in an attempt to coordinate activities in the interest of speed.

The group is charged with collecting information from all government departments concerned with housing; warning "well in advance" when shortages appear to threaten in any particular material, and preparing reports of progress in the housing field in general for the benefit of all concerned.



***Back in Service**—Six months ago, nearly 62 percent of the Netherlands' railways were inoperative—result of demolitions and other war damage. By June, 1946, 91 percent of the system's 1,974 miles of line was back in service, the Netherlands Railways report. Here the first train crosses the patched Oosterbeck bridge, near Arnheim—scene of some of the war's heaviest fighting.*

Approve new premiums to spur housing

Striving to ease the admittedly bad materials situation to spur housing construction, the National Housing Agency last week announced a plan for premium payments to increase production of gypsum board and lath, and the Civilian Production Administration asked immediate release of additional government-held aluminum stocks.

The gypsum payments, embodied in Premium Payments Regulation No. 3, are designed to increase production of gypsum liner—used to encase the processed rock that makes up the main body of board or lath. The regulation authorizes incentive payments of $40 a ton for production of liner in excess of quota.

To provide more aluminum for housing and other reconversion needs, CPA recommended that an additional 50,000,000 lb. of aluminum ingots be withdrawn from the government's current stocks—this in addition to some 70,000,000 lb. withdrawn about a month ago.

CPA blamed the current shortage of aluminum directly on a two-months old strike at the Aluminum Company of America's plant at Alcoa, Tenn., and said most of the aluminum withdrawn from the government hoard will be rolled into sheets for use in housing work.

Private work grows

Meanwhile, private builders continued to announce extensive housing programs of their own.

At Portland, Ore., Kaiser Community Homes, Inc., announced plans for a $10,000,000 project near that city. It will consist of 1,000 dwellings, to be built during the next three months by mass production assembly methods—although the houses will not be prefabricated or demountable. Recently, the Home Construction Co.—financed by the Equitable Savings and Loan Co. of Portland, announced a $25,000,000 development also to be built near Portland.

The Federal Housing Administration announced that as its first act under newly-acquired emergency powers it had issued a commitment to insure a mortgage of $2,115,000 for construction of a 354-unit project near Union, N. J. The project—owned by Stuyvesant Town, Inc., of New York City, will consist of 2-story walk-up brick structures, to rent for $60 per month for three room, and $70 per month for 4-room apartments.

At Springfield, Mo., Country Club Village, Inc., announced plans for a $1,000,000 suburban development adjoining the city on the east.

Builders doubt housing plan figures

Building contractors generally do not agree with Wilson W. Wyatt—National Housing Administrator—as to the need for the immense housing program he has outlined or the wisdom of channeling such a large share of materials to housing, members of the executive and advisory boards of the Associated General Contractors said recently.

Meeting at Denver, Colo., July 1 and 2, the group also expressed approval of the ending of price control regulations (*ENR* July 11, vol. p. 23).

Discussion in the Building Division was largely devoted to means of ascertaining the "true facts" of the housing program—as opposed to Wyatt's program of 2,700,000 housing units by the end of 1947—with builders holding that the full facts concerning the actual need must be determined before a general program is carried out. Industrial and commercial construction is needed so that industry can supply and maintain jobs for veterans, the builders said.

Highway work progresses

Highway contractors reported that "in general" the roadbuilding program is progressing, though slowly in some parts of the country. They cited instances where contract awards were delayed pending contractors' justification of their increased bid prices as having given engineers a "better analysis of job costs than they have ever had before.

A scarcity of highway engineers seems to be hampering the road program, builders said, particularly noticeable in the lack of field men. Low salaries in this employment class are making field engineering unattractive, contractors contended.

Labor relations, other topics

As usual, labor relations were an important topic, contractors expressing concern as to the fate of regulations and agreements coming under the jurisdiction of the Wage Stabilization Board, which went out of existence with OPA. The consensus was, however, that the wage situation would be more stable—following possible local "flurries"—without government control.

Construction costs, according to discussion and reports from the floor, are not out of line with other costs, despite public impression to the contrary.

TRAILERS SUBJECT TO BUILDING CODES

The city supervisors of Honolulu, Hawaii, last week adopted an ordinance that subjects auto trailers to the provisions of the city building code.

The supervisors approved the legal definition to aid them in ridding the city of a clutter of trailer hot dog stands that appeared during the war, untouched by any building regulation.

The new ordinance defined a building as including "any structure mounted on wheels or otherwise, such as a trailer, wagon or powered vehicle, which is parked or stationed on private property and used for the sale of goods, chattels, food or other commercial products."

Legality of building levy to be determined

The Portland, Ore., school board is expected to go to court to determine the legality of a special construction levy which has already produced $2,000,000 and is designed to collect another $3,000,000 during the next three years.

No question concerning the fund, voted by the taxpayers two years ago, had arisen until this spring, when the school board announced its intention to conduct a special election to raise $1,700,000 for increased maintenance and operation during the coming year. An opinion by the district attorney that no law exists under which the registrar of elections in Multnomah County may call such an election was upheld by a supreme court decision, thus casting doubt on legality of the earlier election.

Construction hastened on N. Y. Life apartments

Construction of the New York Life Insurance Co.'s 3,200-unit garden type apartment housing development at Fresh Meadows, Borough of Queens, New York City, is being accelerated and it is expected that the first units will be available for occupancy six months earlier than originally planned, company officials said. Additional land has been acquired so that there will now be 3,200 units on approximately 155 acres.

It is hoped that the first 600 apartment units will be ready for occupancy about April 15, 1947. Of these 300 will be made available to veterans and 300 to employees of the United Nations.

The George A. Fuller Co. has been awarded the contract for the buildings. Architects are Voorhees, Walker, Foley and Smith.

Tentative order placed for 1,200-mile pipeline

Subject to the approval of the Federal Power Commission, the United Light & Railway Service Co. of Davenport, Iowa, consulting engineering and management unit for the United Light & Railway Co. system and its subsidiaries, has placed with the A. O. Smith Corp., Milwaukee, Wis., a $19,000,000 order for 1,200 miles of 26-in. pipe.

When built this new pipeline will bring natural gas from Texas to the greater part of Wisconsin and southern Michigan. However, an official of the Smith corporation said that in view of the present steel situation and the corporation's huge backlog of pipe orders, it might be the spring of 1948 before work on this pipeline could begin. Eventually the line would run from north Texas through Oklahoma, Missouri, Iowa and Illinois, branching at Joliet to Southern Michigan and into Wisconsin in the vicinity of Lake Geneva.

Construction has started on 12-mile Omaha levee

On the Missouri River bank a short distance from the spot where flood waters ripped away a levee three years ago, the city of Omaha last week started construction of a 12-mile permanent levee under the direction of the Corps of Engineers.

The levee project is part of the comprehensive plan approved by Congress in the 1944 Flood Control Act for Missouri basin flood control and full utilization of water resources.

Brig. Gen. Lewis A. Pick, Missouri River division engineer, reports that more than 75 percent of the 1946-47 construction program of the Corps of Engineers under the basin plan is under contract, and it is expected that virtually the entire $39,000,000 congressional allotment for Corps of Engineer projects in the basin this fiscal year will be under contract within two weeks.

Dallas city market plan strikes high cost snag

When the city of Dallas, Tex., opened bids June 29 for a proposed city wholesale carlot produce market, it was found that the lowest bid—for $937,764—was at least 50 percent above what the city had expected to spend on the 36-unit market.

As a consequence, it was said that the project probably will be postponed indefinitely.

May ask Tacoma Narrows bids in September

The Washington State Toll Bridge Authority probably will invite bids early in September for reconstruction of the Tacoma Narrows suspension bridge, Gov. Mon C. Wallgren announced June 25 after a conference with Charles E. Andrew, chief engineer for the project.

Andrew told the governor that a survey he had made indicated contractors would not be able to bid on the project at the present time, because of the scarcity of materials, but expected the situation to improve by fall.

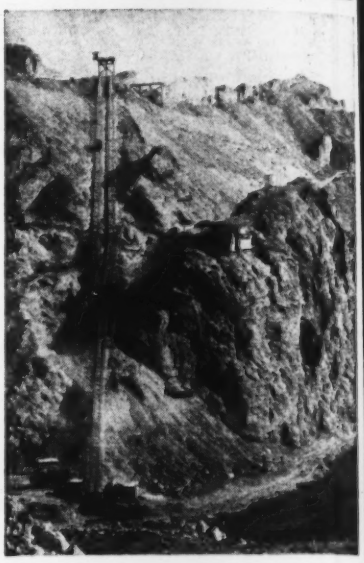
The span, which is to be 5,929 ft. long and 60 ft. wide, will require 17,000 tons of steel and more than 25,000 cu. yd. of concrete.

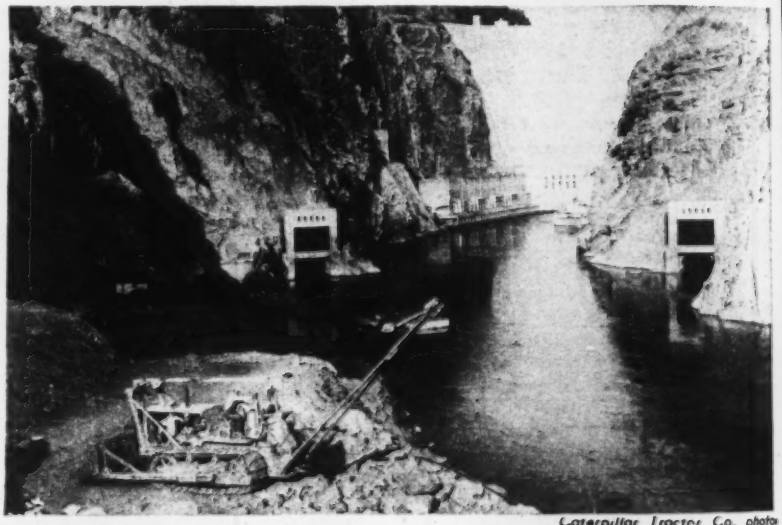
Britain promises U. S. creosote shipments

Great Britain, whose hesitancy to export coal tar creosote to this country since V-J Day may have seriously threatened huge stocks of poles, piling, railroad crossties and similar products, now has informed the U. S. State Department that it will export to us six million gallons of creosote during the last half of this year.

J. F. Linthicum, president of the American Lumber & Treating Co., Chicago, Ill., said last week he had received that announcement through the Civilian Production Administration. It was Mr. Linthicum who a few weeks ago sent a letter to John D. Small, CPA administrator, asking State Department intervention in the British curtailment of creosote exports (*ENR* May 9, vol. p. 760).

Domestic production of creosote, which is a by-product of coke, has declined sharply and wood preservers faced a shortage of at least 20 mg. in 1946.





Caterpillar Tractor Co. photos

Clear Loose Rock Below Boulder Dam—*Seeking to prevent slides of rock and other material near the mouths of spillway tunnels below Boulder Dam, the Bureau of Reclamation has started excavation of some 550,000 cu. yd. of loose fill on both banks of the Colorado River. A disposal area was selected on the Arizona side, which necessitated construction of a cable tramway that raises the material 450 ft. up the canyon wall on a 60 percent grade. Muck excavated on the Nevada side is loaded on a slack line skip and transported across the river to the tramway, as shown in upper photo.*

Machinery price rise of 6 percent reported

The price of construction machinery rose approximately 6 percent in the second quarter of 1946, or between April 1 and July 1, according to the Bureau of Labor Statistics of the Department of Labor. This rise continues an advance in prices which began late in 1945.

The raise during the second quarter brought total increases in prices of construction machinery since VJ-Day to about 10 percent. The greatest increase in the second quarter occurred in the prices of drilling and boring machinery, for which the price climb was about 11 percent. During the three-month period the price of track-type tractors rose about 10 percent and that of material processing equipment 7 percent. Portable air compressors was the only class of construction machinery not showing a price rise, these prices during June remaining slightly below the OPA ceiling.

A study of the BLS data reveals that the price of tractors have increased over 30 percent since August, 1939, and that of equipment for processing materials over 25 percent; while the prices for power cranes, shovels, mixers, pavers, and spreaders rose about 20 percent in the same period. For all classes of construction machinery lumped together, the index price for June is estimated at 121.8, which compares with 100.0 for August, 1939.

The Bureau of Labor Statistics has obtained no data as yet to indicate what the prices of construction machinery have done since July 1, when the price controls of the Office of Price Administration were removed.

Washington bridge job approved by Congress

After many months of controversy, Congress has decided that it would be best to construct two bridges in Washington, D. C., to replace the old 14th Street structure now spanning the Potomac River. Several agencies held out for a single new crossing, but the District of Columbia highway department and the Public Roads Administration have succeeded in getting Congress to pass a bill (H.R. 541) introduced Jan. 3, 1945 to permit the district department to build two four-lane bridges. President Truman has indicated that he favors two structures and is expected to sign the bill.

The measure limits the total cost to $7,000,000. Deck girder structures with a bascule span provided at the main channel are expected to be built. Howard, Needles, Tammen & Bergendoff, New York and Kansas City, have been selected as consultants for the work.

Los Angeles Co. to vote on $44 million bond issue

To cope with an estimated 58 percent increase in its population in the last 15 years, voters of Los Angeles County, California, August 6 will vote on special bond issues for a vast public building and improvement program totaling $44,475,000.

Topping the proposed bond issues is one for $19,000,000 to build a new county courthouse and office building to replace the present outmoded and greatly overcrowded facilities.

Other special issues would finance a new county jail, $5,000,000; a juvenile detention home, $2,000,000; greater beach parks, $8,200,000; county museums in Exposition and Hancock Parks, $3,000,000; a new building for the County Art Institute, $1,275,000, and a system of refuse incinerators, $6,000,000.

Over quarter of USED civil personnel are veterans

More than one-fourth of the civilian personnel of the Office of the Chief of Engineers is composed of war veterans, the War Department has announced. The exact figure is 29 percent, according to a report submitted by the Civilian Personnel Division, Office of the Chief of Engineers, as of May 31, 1946.

Facing the greatest peacetime program in its history, including rivers and harbors and flood control projects as well as a more than $300,000,000 hospital program for the Veterans Administration, the civilian force employed by the U. S. Engineer Districts now numbers only 2,235. Of these, 649 are veterans.

Every effort is made to restore returning veterans to their civilian jobs as fast as possible. A veteran who returns to find his old job still open is re-inducted within a day's time. Where his job has been abolished but there is a vacancy in a comparable position, it takes about a day and a half to screen him.

Steady work in Minnesota

The wage increase recently granted to carpenters, millwrights and pile drivers in the Twin-City area of Minnesota (*ENR*, May 30, vol. p. 833) was negotiated by the Twin City Carpenters District Council and the Minneapolis and St. Paul Builders' divisions of the Associated General Contractors of Minnesota last March and was approved by the Wage Adjustment Board in May. There was at no time any work stoppage, slow down, or disturbance of any sort.

High lock to be built at Chattahoochee Dam

The highest single-lift lock in the United States, and perhaps the highest in the world, is planned at a new dam on the Chattahoochee River near Columbia, Ala.

Carl A. Pierson, executive secretary of the Chattahoochee Valley Chamber of Commerce, said that the lower dam at Junction, Fla., will be 6,450 ft. long with a 37-ft. water-head, 20 flood-gates and a prime hydro-electric power capacity of 37,000 kw. These plans are included in the $73,361,000 river development project.

St. Louis, Mo., goes into auto parking business

The city of St. Louis went into the automobile and truck parking business on a portion of the site of the proposed Jefferson National Expansion Memorial project on June 6, under the general supervision of Arthur C. Meyers, director of streets and sewers. He expects the space provided will take care of 500 automobiles. The charge for parking is to be 25 cents a day between 7 a.m. and 6 p.m. There will be a staff of six men under the direction of a traffic inspector of the Department of Streets & Sewers.

The parking space was made available to the city through a temporary arrangement with the National Park Service, which owns the site.

Mexican water treaty work to be started

The International Boundary and Water Commission of the State Department has received $9,350,000 to begin construction on the Rio Grande, Colorado and Tijuana rivers in accordance with the Mexican water treaty as soon as the bill (H. R. 6056) appropriating this amount and recently passed by the House and Senate is signed by President Truman. The treaty, which was signed Feb. 3, 1944, went into effect last November.

Of the total amount, $8,000,000 is earmarked for starting construction of a storage dam on the Rio Grande between Laredo and Roma, Tex., and $100,000 is provided for emergency flood-control work on the Rio Grande. Other scheduled projects and the amounts apportioned for each were listed (*ENR*, May 23, vol. p. 823) in referring to the passage of the bill by the House.

Atom bomb test well run, will produce much scientific data, observers report

McGraw-Hill editors at test report extensive damage—Appraise bomb's power in the light of examination of first test results

The Navy-supervised tests July 1 at Bikini Atoll (*ENR* July 11, vol. p. 21) were well-planned, scientifically satisfying and revealed greater damage than was at first apparent, two McGraw-Hill editors reported last week, after first-hand observations of the atomic-bomb target fleet.

In dispatches sent some days after the bomb's explosion, P. W. Swain, editor of *Power Magazine*, and Scholer Bangs, Pacific Coast Editor of *Aviation News*—representing *Engineering News Record* and other McGraw-Hill publications at the tests—estimated that the bomb burst occurred between 400 and 600 ft. in the air, about 1,200-ft. astern of the target-ship Nevada and slightly on the port side of the battleship.

"The bomb produced approximately the same blast, flash and radioactivity as the one that burst over Nagasaki," Mr. Swain reported, "but the much stronger construction of the naval targets contracted the circle of great damage from about a three-mile diameter to about one and one-half miles. Moreover, the space within this smaller circle was mostly open water—not a solid mass of structures as in a city."

Commenting on the general effects of the explosion, and on published accounts of it, Mr. Swain added:

"Those who expected the impossible—trees uprooted at Bikini Island three miles away, or steel melted on ships a quarter mile away—were disappointed. Such unscientific expectations arose largely from failure to understand how rapidly all bomb effects must fade with distance. The much-advertised hundred million degree heat was confined to the bomb's center and lasted perhaps a millionth of a second. Very likely, too, the instantaneous pressure at the center reach millions of pounds per square inch—but again, distance did its work. On the cruiser Pensacola, about one-third mile from the burst, the blast pressure was only 5 or 10 psi. According to my horseback estimate, this would be enough to account for the collapse of the 20-ft. wide by 30 ft. high funnels of thin gage steel."

Pointing out that the bomb did more damage than any in naval history—including the sinking of five ships; heavily damaged five others, and might have done very great damage to human crews had the ships been manned, Mr. Swain said that all of the damaged ships he inspected showed the effects of blast pressure, and almost none of fire or great heat. He observed that major changes in naval design apparently dictated by the experiment would be concerned with superstructure—much of which is of light construction and easily susceptible to damage through such blast pressure.

His greatest concern, however, was for the protection of crews of ships that might be subject to such attacks. "No ship, obviously, could be protected against a direct hit by such a bomb," Mr. Swain concluded, "but the question of the protection of the crews of ships on the perimeter of such an explosion presents great difficulties."

Reporting the aerial phases of the test, Mr. Bangs noted that the four radio-controlled "drone" planes which were flown through the radioactive cloud immediately after the blast were all recovered and landed safely for study. He said that it was evident that there is no turbulence within the cloud at any level sufficient to cause structural damage to the plane—and added that eight white rats aboard the planes were "alive and frisky."

Mr. Bangs said that, although steel battle hatches were pounded in as by a great fist, interiors of closed rooms beyond the doors seemed untouched.

Vote $1 million California sewage disposal system

Sanitary District No. 1, adjoining Sacramento, Calif., on the south, voted on June 11 a million-dollar bond issue for construction of a sewage disposal system. Rising prices of labor and materials resulted in addition of $100,000 to the December 1945 estimate of the project's cost.

Included in the project will be 6.5 miles of trunk-line sewer, mains and outfall, estimated at $635,000; a treating plant, including pumps, a steel pipe-line, concrete structures and equipment, $220,000; right-of-way costs placed at $16,000; engineering, $46,000; and contingencies estimated at $53,000.

The trunk-line will extend east and west one mile south of the city limits, beginning at sea level east of the Sacramento River where the treating plant will be located, and rising to the east end of the district. The system, designed to serve an area one mile wide on either side of the trunk-line, will feature a $30,000 booster station, three $8,000 lift stations, 250 manholes, and a vacuum flotation treating plant with a capacity of 7.7 mgd.

The project was made necessary by the Campbell Soup Co. building within the district this year a $3,000,000 factory, from which a 30-in. pipe will run direct to the treating plant.

Harry N. Jenks, Palo Alto, consulting engineer for Sacramento county, and Edward Fairbairn, county engineer, planned the project.

Cleveland considers big construction program

A proposal to spend $23,677,000 for construction and rehabilitation of city property next year was outlined June 29 in a report by John T. Howard, plan director, to the Cleveland, Ohio, city planning commission.

Howard said that delay of major new construction had been recommended until 1948 so as not to interfere with the veterans' housing program.

He pointed out that the money for 1947 and other years through 1952, for which plans were presented, would be supplied from a recently approved $35,000,000 bond issue and from earnings of utilities. There would be no increase in tax rates to finance the program.

Howard said that for the first time since such reports have been made there is money in sight for the projects.

A $1,100,000 central market building is scheduled next year, together with a new health center at E. 55th St. and Superior Ave.

CAA gets appropriation for starting program

To permit the Civil Aeronautics Administration to begin its billion dollar airport construction program, $45,000,000 is included in the Department of Commerce Appropriation Bill (H. R 6056) now awaiting the President's signature. This money is the first appropriation to permit start of the program. The fund is being appropriated in accordance with a law passed early in May (*ENR* May 16, vol. p. 763) authorizing a total appropriation of $500,000,000, the federal money to be matched on a 50-50 basis.

Of the $45 million, $43,260,000 will be apportioned among the states on the basis outlined in the May 16 issue, and $1,740,000 is for projects in Alaska, Hawaii, and Puerto Rico. An additional $2,975,000 is provided for planning and surveys, giving the CAA a total of $47,975,000 for airport work.

The program, although making some concessions to larger airports, favors construction of small fields for local use.

OUR ENGINEER ADMIRALS

Chief, Material Division, Office of Assistant Secretary of the Navy

ADMIRAL BEN MOREELL

When recently the President recommended and Congress approved the pinning of the four stars of a full admiral of the United States Navy on the broad shoulders of Ben Moreell, they honored themselves and the American people as well as the recipient. Other individuals and organizations in growing numbers since even before the war have taken satisfaction and pride in bestowing recognition for attainment on this relatively young officer of the Navy's Civil Engineer Corps. This article is no exception. Ben Moreell, now Chief of the Material Division in the Office of the Assistant Secretary of the Navy, is one of the great men of our times, and he got that way by supplementing splendid natural abilities with a devotion to duty and a will toward hard work that has been plain for all to see.

First staff officer ever to attain four star rank in the Navy, and the first full admiral since the Annapolis Naval Academy was founded not to be graduated from that school, Ben Moreell's true stature is measured by activities and accomplishments far wider in scope than the Navy's business, great as that has become. Before the war his standing in the field of reinforced-concrete design was such that he could be classed among the "long haired" practitioners of the art, although in manner and appearance he is at the opposite pole from the usual idea of deeply scientific men. Since the war he has been handed as extra-curricular activities two of the toughest jobs that have been dumped on the President's doorstep—to operate the strike-bound oil refineries and pipelines, including negotiation of a settlement of the controversy, and to operate the coal mines that John L. Lewis and the owners bequeathed to the government. Ben Moreell is the personification of the idea held by most engineers, except Ben Moreell, that one of their training and abilities could run most jobs in or out of government better than anyone else.

To characterize a man such as Admiral Moreell is not easy, to put him in some generally recognized category impossible. Now 54 years old, he is a big strapping 220 pounder who was a football and track star in college. He is tough and he is charming, often both at the same time. He seems easy-going, but he drives himself at a pace that often alarms and sometimes dismays his associates. He can talk the language of construction men and labor leaders, who

consider him their best friend in government, but he is equally at home before Congressional committees, whose favorite Navy man he is, or in the drawing rooms of diplomats.

A suggestion of this unusual combination of being either hard or soft as the occasion demands may be had from two speeches he delivered in consecutive weeks during the war. In one he appeared before the annual A. F. of L. building trades convention, and spoke so frankly and straight from the shoulder about strikes and work stoppages that Administration leaders held their breath as the "southpaw" fringe of self-appointed friends of labor heaped abuse on him and demands on the President for his demotion or removal. But the honest and influential labor leaders rallied to his defense, and President Roosevelt is said to have remarked privately that "if Ben Moreell said it, it probably needed saying".

The second speech occurred when he was made an honorary member of the American Society of Civil Engineers during which he paid high tribute to his mother as the really deserving recipient of any honors he received. Packed with sincerity and devoid of any theatrical sentimentalism, it left a deep impression on the audience.

An administrator of great talents, Admiral Moreell would probably have made an outstanding success had he chosen to be a business man, a lawyer or a doctor. His associates and subordinates, some of whom must naturally have resented his being jumped over their heads when he was made chief of the Bureau of Yards and Docks in 1937, believe he could still make a success in those fields if required to.

All of these qualities are accompanied by a modesty with respect to himself and a fairness with respect to his associates that is remarkable. It is because of this modesty and fairness that this appraisal appears so late in the series of articles in this journal on "Engineer Admirals" and "Engineer Generals". At the time in 1943 when the plan for such articles was presented to him, he felt that it would be impossible to single out a few Civil Engineers Corps admirals without being unfair to others. And he felt that if that were the case, his own biography should be omitted also. Later in the war, two Engineer admirals, Manning and Cotter, rose to positions of outstanding authority as directors of the Atlantic Division and Pacific Division, respectively, and their biographies were published. Rear Admiral Jack Manning is now Moreell's successor as chief of the

Bureau of Yards and Docks and Rear Admiral Carl Cotter is his deputy.

In Admiral Moreell's present job he coordinates the procurement of everything for the Navy, from bandages to battleships. But his background and training are that of a civil engineer and a construction man, obtained during 29 years in the Bureau of Yards and Docks, and his greatest accomplishments were turned out during two four-year tours of duty as its chief. What he did during those eight years and previously furnishes an engineer success story that has seldom, if ever, been equaled.

Graduated from Washington University of St. Louis in 1913, Admiral Moreell worked four years for the city of St. Louis and then came into the Navy through a competitive examination in June, 1917. One of his first assignments was as aide on the staff of the Commander, Azores Detachment, Atlantic Fleet, and also as public works officer, U. S. Naval Base, San Miguel, Azores, from January, 1918, to June, 1919. A year in the United States was followed in September, 1920, by his appointment as principal assistant and executive officer to the engineer-in-chief, Department of Public Works, Republic of Haiti, a job he held for four years. Two years at the Norfolk Navy Yard were then followed by four years as assistant design manager of the Bureau of Yards and Docks in Washington, during which time he wrote a design manual on reinforced concrete that has not only guided that type of Navy construction ever since, but has been widely used as a reference and text.

In June, 1930, he was detailed as public works officer of the Puget Sound Navy Yard and the 13th Naval District, during which time he handled a large construction program of shore facilities.

Always making the most out of every assignment, Admiral Moreell spent the year from June, 1932, to June, 1933, at the Ecole Nationale des Ponts et Chaussees, in Paris, and returned to introduce this country to the advantages of Freyssinet's high-strength prestressed concrete, his jacking method of decentering concrete arches and of Mesnager's use of hinges in reinforced-concrete structures. Assigned, on his return, as assistant design manager of the bureau with personal supervision for a new ship model testing basin at Carderock, Md., Admiral Moreell applied this recently accumulated knowledge to the design of the first articulated concrete structure in this country.

In August, 1937, he was assigned as public works officer of the Navy Yard at Pearl Harbor and as public works officer of the 14th Naval District there, but in December of the same year, then only a commander in rank, he was recalled to the United States and appointed Chief of the Bureau of Yards and Docks and Chief of Civil Engineers with the rank of rear admiral. On Feb. 1, 1944, he was advanced to vice admiral, the first chief of the Bureau of Yards and Docks ever to hold that rank.

Rear Admiral at 44

Only 44 years old when he was appointed chief of the bureau, Admiral Moreell soon proved himself wise and able beyond his years. Thoroughly frightened by the lack of preparedness in ship repair facilities he had seen at Pearl Harbor, he immediately tackled Congress for money for drydocks, surprisingly enough got it, and then by foresight and drive had the facilities finished by 1940. The investment and Admiral Moreell's hard work paid off handsomely when, within a few days after the Pearl Harbor raid, a damaged battleship was undergoing repairs in one of the new drydocks.

The same foresight and drive applied to cooperative action with civilian construction contractors brought the Midway Island airfields to completion a year ahead of schedule, and it was from those fields that the ninety-six bombers, fighters and torpedo planes took off to surprise the Japs, cinch the Battle of Midway and turn the tide in the Pacific.

Organizes Seabees

Foresight and drive also produced the Seabees, that force of construction men inaugurated, built up and commanded by Admiral Moreell, which covered itself with glory in building bases, manning floating drydocks, stevedoring ships and fighting when need be from Normandy to Tokyo. At the end of the war there were 240,000 men and 10,000 officers in the Seabees, and 85 percent of them were overseas. And speaking in statistics, the five-year war construction program directed by Admiral Moreell as Chief of the Bureau of Yards and Docks, involved a construction investment in 900 Naval bases, including 300 advance bases, of over 10 billion dollars. In comparison, during the 21 previous years, including World War I, Yards and Docks construction totaled only one-third of a billion dollars.

One great result of Admiral Moreell's war activities has been a rise in the status of the Bureau of Yards and Docks in the estimation of the salt-water sailors and line officers of the Navy. Nimitz, Halsey, Mitscher and Stark swear by Ben Moreell, and have applauded publicly and privately as stars have been added to his shoulders, and new honors and responsibilities have come to him. To mention a few: For his war jobs he received the Distinguished Service Medal for "displaying great originality and exceptional capacity for bold innovation and for inspiring his subordinates to a degree of loyalty and devotion to duty outstanding in the Naval Service." He was given the Legion of Merit for making the 100-octane gasoline plant construction program a success "by his untiring efforts which were entirely in addition to his duties and responsibilities as Chief of the Bureau of Yards and Docks." A second Distinguished Service Medal was bestowed for his great service in operating the struck petroleum plants and pipelines for the government and in bringing about a settlement between management and labor without "compulsion, legislation or other enabling act and before any officially appointed board had formulated an effective decision." And only recently the Secretary of War appointed him to another vital job as a member of the Board of Consulting Engineers to advise in the improvement of the Panama Canal.

Now that he wears four of those stars he might be considered to have reached the top. But Ben Moreell, member of Sigma Xi, honorary scientific fraternity Tau Beta Pi, honorary engineering fraternity, holder of all top medals of the American Concrete Institute, honorary member of the American Society of Civil Engineers, revered by construction men as one of them, looked upon by labor as a welcome adviser and honest critic, has grown with every job, and his friends say he will continue to grow.

Not long ago, in a speech before the New York Building Congress, he gave an intimation of a broadening in his interests when he touched on our foreign policy. "The interdependence of our foreign policy, our diplomacy and our armed might," said Admiral Moreell, "has been forcibly demonstrated since the termination of hostilities. Diplomacy and military power are the instruments with which our foreign policy can be made effective. Without armed might we are placing the executors of our foreign policy in the unfortunate position of the poker player with unlimited ambition—but no chips!"

Ben Moreell, engineer and construction man, and top-flight Naval officer, has always been an advocate of a sufficient supply of "chips". If he didn't have them he went out and got them. The Navy's official biography of Admiral Moreell says that his motto is "Hard work is the best road to success—and there is no substitute." Included in a lot of official biographies, that could be set down as "eyewash". In Ben Moreell's case it applies, whether he ever consciously had such a motto or not.—*W. G. B.*

High costs retard New England roads

Costs that have risen from 35 to 80 percent are blamed for the delay in starting one of the most extensive highway construction programs that New England has ever known—estimated at $66,000,000.

This situation was brought to light after surveys by the New England Council, the New England Road Builders' Association and the Massachusetts Highway Users Conference.

The organizations reported that states have plenty of money, materials and blueprints waiting for the program to be launched, but in Maine, New Hampshire and Vermont, the New England Road Builders Association has had reports of an almost complete bogging down of highway construction. Massachusetts has done better than its neighbors, although the Bay State is held back by high costs.

With wages 100 percent higher than they were in 1940, with equipment costing 40 percent more and materials 83½ percent above the prewar figures, the highway authorities will have to adjust themselves to considerably higher costs if they are to get new highways, road building officials say. Contractors are being turned down right and left on their bids for projects, because to protect themselves against uncertainties, they are bidding much higher than they would in normal times.

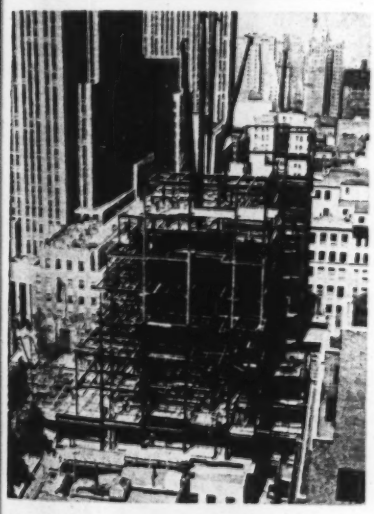
Despite these handicaps, however, the New England Council noted that nearly 20 percent of the $66,000,000 program has been let in the last year.

Bids in Oregon too high

Straightening of the Columbia River highway in Oregon to eliminate the twists, turns and grades of the Crown Point section must wait until contracting prices in the Portland area get back to normal, the State Highway Commission indicated June 26 in rejecting all bids for the job of placing six miles of roadbed embankment from Troutdale to Wahkeena creek.

It was the second time bids were rejected as too far over highway commission and federal public roads bureau estimates.

State Highway Engineer R. H. Baldock and W. H. Lynch, PRA district engineer, refusing to say how much bids were over estimates, said merely that they were "way over." The low bidder was the General Construction Co. of Seattle, Wash., at $1,057,370.



New Store—Best & Co., New York City department store, plans to move further "uptown" on Fifth Avenue, to 51st St., where it will occupy a 12-story building now under construction. Feature of design is cantilevered beams, carrying the floor loads in front of the elevators to give unobstructed space. Shreve, Lamb and Harmon are architects, Peter A. Strobel is engineer, and John Lowry, Inc., is contractor.

Structural insulation recommendation revised

The National Bureau of Standards has announced that a revision of Simplified Practice Recommendation R179-42, structural insulating board (wood or other vegetable fiber) has been proposed by the Insulation Board Institute. The standing committee in charge of the recommendation has approved the proposal for distribution to all interested for comment, acceptance, or both.

The proposed revision includes certain changes in the recommendation as promulgated in 1942. Building board in the ¾" thickness; sheathing in the 8½ and 9½ ft. lengths; insulating plaster lath in 16 and 24 inch widths; tile-board (panels) in 8" x 8" size; and plank in 6 ft. lengths are no longer included as recommended standard stock-production items. Also thin board has been dropped from the recommendation as this type of board is not considered to be an insulating board product. A simplified list of recommended sizes, thicknesses, edges and surface colors has been added for interior boards (factory finished), also surface colors are recommended for building board, tileboard and plank.

Copies of the proposed revision may be obtained from the Division of Simplified Practice, National Bureau of Standards, Washington 25, D. C.

Army Engineers to get $816,044,000 fund

A conference committee of the House and Senate, in reporting out the $7 billion War Department appropriations bill (H. R. 6837) for the 1947 fiscal year, which ends next June 30, has agreed upon an appropriation of $816,044,000 for the U. S. Army Engineers. The bill is expected to go to the White House for the President's signature in this form. Much of the fund will be used for construction.

An appropriation of $375,544,000 has been provided for engineering services. Some $195,000,000 of this money is expected to be used for construction of Pacific and Alaskan bases—this work having recently been started with award of large contracts (*ENR* July 4, vol. p. 1). Some of this fund will also be used for repair and alterations of existing military buildings and some will go into railroad construction.

For work at military posts on the mainland a total of $115,500,000 is provided, this work to include a large amount of maintenance. A sum of $325,000,000 is provided for the construction of army barracks and other types of quarters and will include considerable minor construction.

Approve more flood control

Authorization for flood control construction by the Corps of Engineers to the amount of $772,000,000 has been approved by the Senate as a whole in allocating funds of the authorization bill (H. R. 6597). This total is an increase of $22 million dollars over what the House provided (*ENR* June 28, vol. p. 963). Authorizations for the Department of Interior for $150,000,000 of work in the Missouri River Basin and $25,000,000 for watershed improvements by the Department of Agriculture remain unchanged. The bill is an authorization measure and thus contains no actual provision of construction money.

The Senators increased the Engineers' fund by adding five new flood control projects to the work approved by the House. These projects are: Lucky Peak Reservoir on the Boise River, Idaho, with an estimated cost of $10,684,000; construction of four detention reservoirs in the Upper Yadkin River Basin at Wilkesboro, N. C., $7,194,000; construction of the Heyburn Reservoir and channel improvements on Polecat Creek, Okla., $1,838,500; construction of the Whitlow Ranch Reservoir on Queen Creek, Ariz., $1,645,000; and flood protection of Carden's Bottom drainage district No. 2, on the Arkansas River in Yell County, Ark., at an estimated cost of $1,485,000.

MEN AND JOBS

John C. Sprague, engineer in charge of the division materials testing laboratory, South Atlantic Division, Corps of Engineers, U. S. Army, has moved to Marietta, Ga., new headquarters of the laboratory having been transferred there from Jacksonville, Fla.

Charles B. McAdam, engineer with the U. S. Engineering District office in Jacksonville, Fla., has gone with the Army Map Service, Panama Canal Zone.

Personnel changes in the Pennsylvania Highways Department include these appointments:

District 1, Franklin—**Gerald E. Skinner,** Corry, project engineer; District 4, Scranton—**Frank G. Hammond,** Scranton, resident engineer; District 6, Ardmore—**Harold S. Butz,** Lancaster, project engineer; District 9, Hollidaysburg—**James W. Shoff,** Roaring Springs, project engineer.

Resignations: District 9, Hollidaysburg—**John D. Roberson,** Hollidaysburg, project engineer.

The North Carolina State Planning Board has appointed a committee of engineers to advise on the preparation of topographical maps of the state. They are **Jasper L. Stuckey,** Raleigh, chairman; **W. J. Damtoft,** Canton; **C. W. Gilchrist,** Charlotte; **W. F. Prouty,** Chapel Hill; **W. A. Riggs,** Wilmington; **J. H. Lampe** and **H. B. Robinson** of Raleigh.

Donald C. Bengs, formerly assistant civil engineer of the Milwaukee water department, has been appointed assistant city engineer of Waukesha, Wis.

Russell B. Moore, consulting engineer, Indianapolis, Ind., has announced reorganization of the firm Moore & Owen. The new member, Mark B. Owen, previously had been associated with the company.

A. R. Ketterson, engineer of bridges of the Canadian Pacific Railroad, has retired after 39 years service. **G. E. Shaw,** graduate of McGill University, Montreal, has been named to succeed him.

Robin Swift, Alabama state highway director, has been appointed interim U. S. Senator to fill the place of the late Senator John H. Bankhead.

W. Raywood Smith has resigned as county engineer of Middlesex County, Ont., to enter private practice.

The Toronto, Ont., consulting engineering firm of James Proctor and Redfern has changed its name to Proctor, Redfern and Laughlin, the partners being **E. M. Proctor, W. B. Redfern,** and **W. H. M. Laughlin.** Mr. Laughlin served for many years with the Ontario division of Dominion Bridge Co. Ltd., lately as chief engineer.

Carl E. Kaiser, Columbus, Ohio, has been appointed a civil engineer in the city engineering department there.

Guy E. Whitman, engineering graduate of the University of Alabama, who resigned recently as city manager of Roxboro, N. C., has been appointed public works consultant for cities and towns in the North Carolina League of Municipalities, Raleigh. He will be available for consultation and assistance on engineering and public works projects.

Thomas G. Odegard, formerly with the Minnesota State Highway Department, has been appointed county highway engineer for Lake County.

V. T. Kenna, Virginia, Minn., is the new county engineer for Cook County.

George E. Schumann, chief structural engineer for Wilbur Watson Associates, Cleveland, Ohio, since 1938, has resigned to become assistant chief design engineer of Kaiser Engineers, Inc., Oakland, Calif.

Frank H. Shaw, after five years absence on war plant construction, has reopened his engineering office at 53 North Duke St., Lancaster, Pa.

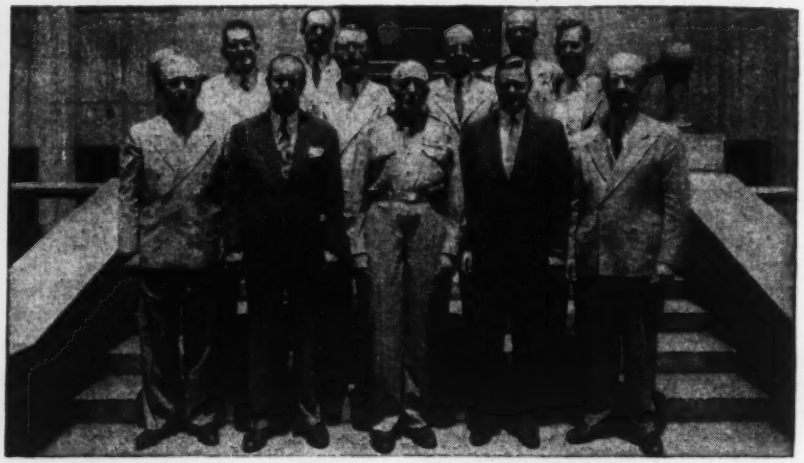
John A. Long has resigned as manager of the county highway officials and municipal divisions of the American Road Builders Association to become executive secretary of the Florida State Builders' Association at Tallahassee.

Harold D. Hauf, engineer and architect, formerly professor of civil engineering and architecture at Yale University, has been appointed director of the Technical Branch of the National Housing Agency.

John G. Thompson has been appointed chief of the metallurgy division at the National Bureau of Standards and **William F. Roeser** has been made assistant chief.

Wilfred W. Baker, formerly Bureau of Reclamation engineer at Tucumcari, N. M., has gone to Pierre, S. D., to become supervisor of bureau preconstruction activities in South Dakota.

Robert H. Baldock, engineer for the Oregon state highway commission, with which he has been connected 31 years, has been given an honorary doctor of science degree by the University of Oregon. He has been United States

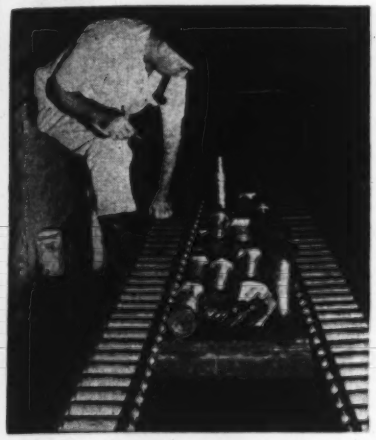


Posing for a group portrait with their bosses are division engineers of the Bureau of Community Facilities of the Federal Works Agency. Front row, left to right, are: William H. Cheney, Denver; Oliver T. Ray, Atlanta; Maj. Gen. Philip B. Fleming, FWA administrator; George H. Field, Commissioner of the bureau; and Wright L. Felt, San Francisco. Rear: William D. Jones, New York; L. R. Durkee, Seattle; H. J. Sullivan, Washington, D. C.; C. W. Anderson, Kansas City, Mo.; W. H. Sindt, Ft. Worth, and R. C. Ashton, Chicago.

representative to the Pan-American Highway congress three times, and was delegate to the Eighth International Road congress at The Hague, Belgium, in 1938.

Colonel Gilbert V. Wilkes has been relieved of duty as district engineer, Louisville Engineer district, and is now attached, unassigned, as a patient at Nichols General Hospital, Louisville.

Col. Henry C. Wolfe, formerly director of planning division, headquarters, ASF, has been assigned to duty as Chief of the Engineering Division, Military Construction, Office of the Chief of Engineers.



F. B. Bierce, engineer-in-charge at Marshall Ford Dam on the Colorado River in Texas, inspects reconditioned rollers and link pins for paradox gates at the dam. The 102-in. gates, of which there are 24, were the first of their type installed in the U. S.

Back to Civilian Activity

Floyd Eugene Brown, Springfield, veteran, has been employed by the Illinois Division of Highways as engineering aide.

Returning from military leave to the Illinois Division of Highways as civil engineers are: **Karl E. Luthin, Jr.,** Quincy; and **Llyod C. Teas,** Carbondale. As field investigator is **Willard G. Snow,** Springfield.

Chester A. Schumacher, recently discharged from the Army and formerly civil engineer for the Milwaukee regional planning division, has been appointed senior engineer in the public works department of Waukesha, Wis., to succeed **John Mielke,** resigned.

Hiram W. Sperry, colonel, Corps of Engineers, is now associated with Brewton Engineering Co., Panama City, as general superintendent. He served in Alaska over two years. His last assignment was in the Office, Chief of Engineers, Washington, D. C.

Fred L. Anderly, major and engineering officer with the 338th Engr. Regiment, recipient of the Legion of Merit for reconstruction of the Port of Leghorn, Italy, has returned from service and is chief engineer for the Minneapolis Dredging Co., Minneapolis, Minn.

After five years of military service in the United States, New Guinea and the Philippine Islands, **J. Harper Hamilton,** colonel, Corps of Engineers, has returned to his former position as chief engineer of the South Dakota Public Utilities Commission at Pierre.

Edwin D. Gill, former major in the Army Engineers, has returned to the North Carolina State Highway & Public Works Commission, as associate bituminous engineer.

Robert Galvanoni, captain, returned from the Engineer Corps to inactive status, will be appointed health department field sanitarian, Rockford, Ill., a position held by him four years before entering the Army, 1941.

Richard G. Ahlvin, lieutenant, Joliet, Ill., is being discharged after 42 months of service, of which a year and a half was spent in Germany and France with the Engineer Corps.

Kenneth B. Reynolds, first lieutenant, USMCR, has recently returned from China where he was stationed as a bomb disposal officer and is now working in the engineer offices of C. C. Kennedy, consulting engineer, San Francisco, Calif.

Arthur E. Stanley, colonel, has resumed his duties as a partner with the Stanley Engineering Co., Muscatine, Iowa, after five years with the Army Air Forces, including 2½ years in charge of the building and ground department of the Army Air Forces Western Flying Training Command and 2 years as the Army Air Forces representative and termination contracting officer at the Consolidated Vultee Aircraft Corp., San Diego, Calif.

Gilbert R. Frith, lieut. colonel, and **William L. Avrett,** major, have returned to the engineering division of the Georgia State Health Department after having served with the Sanitary Corps of the Army since 1942.

Russell G. Broadus, lieut. colonel, of Raleigh, N. C., recently separated from the Army Air Forces, has been named locality housing expediter for eastern North Carolina. A graduate of Virginia Polytechnic Institute in 1934, he was for a while connected with the Soil Conservation Service at High Point, N. C., as assistant to the chief engineer, and from 1935 to 1939 was connected with the North Carolina State College Engineering Department at Raleigh.

John S. Smith, a lieutenant in the Navy Engineer Corps for three years, has been appointed city engineer at Ellensburg, Wash., following the resignation of F. L. Breckon. He was graduated in civil engineering from the University of Nevada and was with the Bureau of Reclamation for nine years.

***Mapping Interest**—While Warrant Officer A. W. DeYoe demonstrates a German theodolite, members of the American Congress on Surveying and Mapping watch with interest. Left to right, they are: R. H. Randall, chief examiner, surveying and mapping, U. S. Budget Bureau; Eduardo Alverez, director, Geographic Institute of Colombia; B. P. Lambert, deputy director of surveys, Australia; M. Y. Poling, U. S. Coast and Geodetic Survey; C. R. Manor, U. S. Engineer Board; A. L. Shalowitz, editor of "Surveying and Mapping"; Gen. Fernando Zarate, director, Geographic Military Institute of Mexico and his aide, Lt. Alfonso Vaca, and Capt. F. S. Borden, chief, division of Charts, U. S. Coast and Geodetic Survey, who was reelected president of the Congress.*

ENGINEERING SCHOOL NEWS

New dean at Iowa—President Wickenden of Case to retire—Two years of practical training for 40 Canadian engineering graduates

Jesse E. Buchanan, dean of the college of engineering, University of Idaho, will succeed T. R. Agg, dean of the engineering division at Iowa State college, Ames, Ia., who retired July 1. Dean Agg will remain on the teaching staff and also engage in research work.

Buchanan, 42, has received his bachelor's and master's degrees from the University of Idaho. He was civil engineering instructor and testing engineer at Idaho from 1927 to 1929, when he was made an associate professor. He was employed by the Asphalt Institute of San Francisco in 1938 and 1939 but returned to Idaho as dean of the college of engineering, director of the engineering experiment station, and professor of civil engineering. He had been an leave of absence from the University of Idaho since 1942, when he entered the Army. He served in the China-Burma theater. Entering the service as a captain he was discharged a colonel.

Retiring Dean Agg went to Iowa State college in 1913 and had been with the Ames, Ia., institution continuously since that time, advancing from assistant professor of civil engineering to dean of the engineering division.

William E. Wickenden, president of the Case School of Applied Science, Cleveland, Ohio, since 1929, will retire Aug. 31, next year, a few months before his 65th birthday.

About forty of this year's engineering graduates of Canadian universities have been taken on by the Hydro Electric Power Commission of Ontario for a special 2-year training plan initiated after long study by executives. The plan has been devised to give the young men a broad training and a general understanding of engineering as it applies to a public utility. It will also serve to show up the individual capacities of the trainees and where they can best fit into the organization of the commission's staff. The young men will be taken on the regular staff of the commission.

The Willow Run airport, formerly operated in connection with the Ford bomber plant, has been turned over to the University of Michigan by the War Assets Administration. Several departments of the college of engineering—civil, aeronautical, electrical, chemical, and mechanical—will use the facilities of the airport to conduct research. It is expected that a supersonic air tunnel will be constructed there.

Dean S. S. Steinberg of the University of Maryland college of engineering has been reappointed by Governor Herbert R. O'Conor of Maryland a member of the State Board of Registration for Professional Engineers and Land Surveyors for another 5-year term to represent the civil engineers and land surveyors of the state.

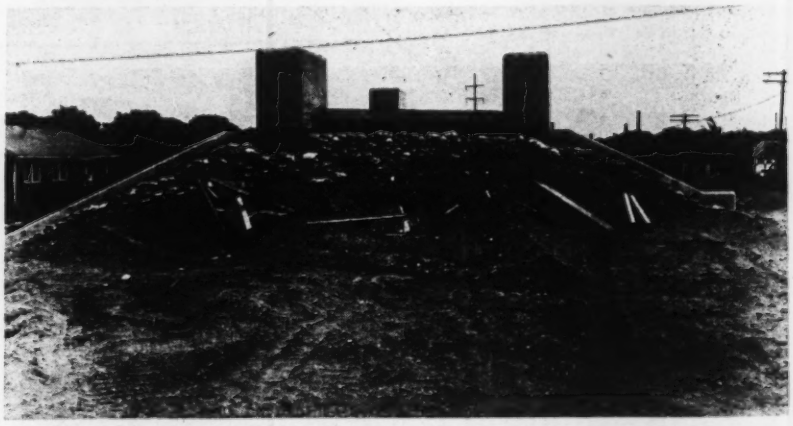
In connection with the sanitary engineering courses to be offered this fall at The Johns Hopkins University, Baltimore, Md., it is announced that a change in university regulations makes it possible to offer a 1-year program of study leading to the degree of master of science in sanitary engineering. Thus, opportunity for advanced study at The Johns Hopkins University School of Engineering is now open to men who can spend only one collegiate year in work for a graduate degree. The program leading to either the master's degree or the doctorate are planned to equip men for professional work in one of the following fields of sanitary engineering: public health, design and construction, industrial hygiene, hydrology and water conservation.

Abel Wolman is professor of sanitary engineering.

President Harry B. Wallace of Washington University, St. Louis, Mo., recently announced that the engineering school had received a donation of $100,600 to the current fund.

Otto S. Zelner, civil engineering professor, University of Minnesota, has retired after 34 years of teaching. A graduate of the University of Michigan he went to the University of Minnesota after extensive work with the U. S. Lake Survey. His special field is higher surveying, particularly triangulation, hydrographic and topographic work. His courses will be taken over by Associate Prof. Russell C. Brinker.

The North Carolina Society of Engineers has gone on record as supporting a program to build the North Carolina State College School of Engineering to a position "second to none." The resolution was adopted after Col. John W. Harrelson, chancellor, told the society that the college is seeking a minimum of $5,000,000 for the expansion program which he said is "more important to industry and engineers than it is to the college. We want to give you the service you need, but at the present time we do not have the necessary facilities. We must built up our engineering school and make it adequate."



Eliminates Grade Crossings—*Typical of some 15 grade crossing elimination projects planned for the Long Island Rail Road this year, work is well under way at Farmingdale, (L. I.) N. Y., on a $490,000 job. Supervised by the New York State Department of Public Works, the job consists of the elevation on to about 9 ft. of earth fill of 6,000 ft. of single track, and construction of three bridges with concrete substructure, steel girders and floor beams encased in concrete. The back of the abutments is drained through bagged, screened gravel to a perforated corrugated metal pipe leading to weep holes through the abutments. The contractor is the Horn Construction Co., of New York City.*

OBITUARY

William Ira Lee, 73, retired senior highway engineer of the Public Roads Administration, died July 5 at Richmond, Va. After serving overseas in World War I, in 1928 he went with the PRA and was placed in charge of the construction of Mount Vernon Memorial Highway in northern Virginia. He later became resident engineer of the Great Smoky Mountain National Park, retiring in 1945.

John M. Read, 57, died at Phoenix, Ariz., recently. He received a civil engineering degree at Pennsylvania State College in 1912, and later spent two years as a civil engineer for the Canadian Pacific Railroad. He served overseas in the first world war as a second lieutenant.

Maj. Gen. Paul S. Benoit, of Halifax, N. S., a retired engineering officer in the Canadian army died at Fredericton, N. B., July 7. He reverted from lieutenant-colonel to lieutenant to go overseas with the Royal Canadian Engineers in the first world war. He retired in 1935. He had held commands in the R.C.E., at Toronto, Ottawa and Kingston, Ont., and at Quebec, Que.; Winnipeg, Man. and Halifax, N. S.

Leon Marcus Bunce, 63, Sutter County surveyor and for 10 years city engineer of Yuba City, Calif., died July 7.

E. A. Irish, 64, past president of Associated General Contractors and owner of one of the leading general contracting firms in Los Angeles, Calif., died there July 6. Formerly a telephone company official in Hawaii, he left Honolulu 35 years ago to go to Los Angeles as superintendent of construction for the Bell Telephone Co. He established his own organization, the E. A. Irish Co., in 1924.

Arthur P. Furbush, 62, of Seattle, an engineer with the Washington State Highway Department for 20 years, died July 4 in that city. He had lived in the Seattle area for 53 years.

William G. Clark, 88, sanitary engineer and waterworks consultant for Toledo, Ohio, and former city engineer, died July 11.

A 10-year airport plan for Wyoming has been completed for the Wyoming Aeronautics Commission by Kaiser Engineers, Inc., of Oakland, Calif., to provide the commission with a basis for planning a construction program with the aid of federal funds.

Burns and Kenerson, Inc. formed at Boston, Mass.

Thomas S. Burns, formerly with the U. S. Engineer Office, Providence, R. I., and Waldo I. Kenerson, recently Colonel, Corps of Engineers, have formed Burns and Kenerson, Inc., consulting engineers, at 20 Kilby Street, Boston, Mass.

T. S. Burns

Mr. Burns, a graduate of the University of Wisconsin in 1915, has specialized in hydraulics, water power and electrical engineering. Joining the U. S. Engineer Department in 1930 as senior engineer, his last positions were as head engineer and chief of the engineering division in the Providence and Syracuse District offices.

Mr. Kenerson was graduated from Massachusetts Institute of Technology in 1929, specializing in soil mechanics and foundation engineering, and for some years worked in Boston as field engineer on large construction jobs. In 1935 he joined the Corps of Engineers and worked on the soils and foundation investigations at Passamaquoddy Tidal Power project. When the United States entered the war, he was commissioned as a major in the Corps of Engineers. Early in 1943 he was made chief of the engineering division to the District Engineer at Recife, Brazil. Later that year he was assigned to the 14th Air Force in China where, as colonel, he was successively district engineer of North and Southeast China and at that time was in charge of military construction for the United States.

W. I. Kenerson

Calendar of Meetings

REGIONAL

Ninth Annual Short Course for water and sewage personnel, Louisiana State University, Baton Rouge, La., July 25-27.

Interstate Commission on the Potomac River Basin, 5th annual meeting, Camp Ritchie, Md., Aug. 8-9.

American Shore and Beach Preservation Association, summer meeting. The Breakers, Cedar Point, Ohio, Aug. 13-15.

CONSTRUCTION ACTIVITY

As Reported this week to ...
Engineering News-Record

CONTRACT VOLUME

Continental U. S. Only
(Thousands of Dollars)

	Week of July 18 1946	Cumulative 1946 (29 wks.)	Cumulative 1945 (29 wks.)
Federal	$51,888	$442,533	$559,303
State & Mun.	37,213	745,350	158,597
Total Public	$89,101	$1,187,933	$717,900
Total Private	41,309	1,848,768	288,149
U. S. Total	**$130,410**	**$3,036,701**	**$1,006,049**

WHERE CONSTRUCTION ACTIVITY ORIGINATED THIS WEEK

Dollar Volume (Thousands)

Type of Work	This Week	Cumulative 1946 (29 wks.)	Cumulative 1945 (29 wks.)
Waterworks	$1,335	$52,959	$23,773
Sewerage	5,131	54,629	16,339
Bridges	5,132	73,476	14,938
Highways	23,157	429,987	116,442
Earthwork, Waterways	11,921	242,014	21,373
Buildings, Public	33,270	226,949	340,981
Industrial	7,237	570,752	195,807
Commercial	32,250	1,164,689	56,960
Unclassified	10,977	221,246	219,436

NOTE: Minimum size projects included are: Waterworks and waterway projects, $22,500; other public works, $40,000; industrial buildings, $55,000; other buildings, $205,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1946 (29 wks.)	Cumulative 1945 (29 wks.)
NON-FEDERAL	$894,309	$472,613
Corporate Securities	246,068	90,408
State and Municipal	423,241	218,605
RFC Loans	.....	200
REA Loans	.....	84,400
Fed. Aid Highway	225,060	79,000
FEDERAL	925,275	1,005,325
Total Capital	$1,819,584	$1,477,938

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	July, '46	353.89	170.11
Building Cost	July, '46	266.13	143.86
Volume	June, '46	344	151

CONSTRUCTION REPORTS

Bids Asked — Low Bidders — Contracts Awarded

(Daily service also available—Write for details)

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager *J. A. MAHONEY, Reports* *J. V. McEWEN, M. R. ROESSLER, Statistics*

WATER SUPPLY

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 23

†**Conn., Hartford** — Bd. Contr. & Supply, Metropolitan Dist., 650 Main St., 47,000 ft. 4- to 12-in. c.i. pipe, 44 tons 4- to 12-in. c.i. fittings, Contr. 106; 382 solid wedge valves 4- to 16-in. Contr. 107; fire hydrants Contr. 108; 650 sets (65 tons) c.i. valve boxes, from Water Bureau patterns, Contr. 109; 3,400 assorted brass cocks, 5,400 assorted brass adapters, Contr. 110. R. Dillon, clk.; adv. ENR 7/18.

Bids Asked July 23

Ark., Mountain Home—V. E. Hutcheson, mayor, City Hall, imprv., exten. WW sys. R. E. Williams, 10008 Pyramid Bldg., Little Rock, engr.

Bids Asked July 29

Md., Towson—Comrs. Baltimore Co., Courthouse, 18,360 lin. ft. 6 to 10-in watermains, valves, hydrants, roadway boxes, etc. in Hillendale area, Contr. 95-W. D. Andrews, c/o owner, engr.

N. Y., Poughkeepsie—Dpt. P. Wks., City Hall, reconstructing Sand Filter 2. Plans deposit $10. M. Pirnie, 25 W. 43 St., New York, Zone 18, engr.

Bids Asked July 31

Ind., Orleans—Town Bd. Trustees, L. Shortridge, clk., Orleans, water treatment plant, plant piping, filters, two 200 g.p.m. high and one 200 g.p.m. low service pumps, earth dam. $70,000. Plans deposit $10. Martin L. Burden & Assoc., Alexandria, consult. engrs.

Bids Asked August 7

Miss., Jackson—City, City Hall, installing intake sys. and auxiliary pump station for WW, $150,000. J. J. Halbert, Jackson, city engr.

LOW BIDDERS

Ark., Melbourne—City, C. L. Cager, mayor, June 18, WW and distr. sys., pump house, equipment, mains, fire hydrants, etc., from Worth-James Constr. Co., Pyramid Bldg., Little Rock. **$55,960.** Est. approx. $50,000. CD 6/6—ENR 6/13.

Calif., San Francisco—Pub. Utilities Comn., City Hall, July 2, 4- to 12-in. c.i. watermains, Laurel Heights subdivision, Spec. 425, from E. J. Treacy, 425 Dewey Blvd. **$40,345.** CD 6/21.

La., Oil City—City, water distr. sys., from B. Bresner, Alexandria. **$54,000.**

Mass., Braintree—Town, Bd. Selectmen, Town Hall, July 2, 8- to 12-in. water lines, Contr. 1, from J. Williams, 8 Beechwood St., Dorchester, **$20,300**; Contr. 2 from Pacella Bros., 63 Olney St., Dorchester, **$73,948.** CD 6/25—ENR 6/27.

CONTRACTS AWARDED

★**Calif., San Diego**—City, Civic Center Bldg., El Monte pipeline, Sect. II, Lakeside to Grossmont Tunnel, to American Pipe & Constr. Co., 4635 Firestone Blvd., South Gate. **$1,315,708.** Bids 6/25. CD 6/28—ENR 7/4, under L.B.

Ind., Salem—Bd. P. Wks., Mayor O. L. Cook, chn., Ruth Meadows, clk., Div. 1 earth dam, concrete spillway, intake tank, clearing site for WW sys. to K. W. Winslow and L. B. Light, Salem, **$128,774.** Bids 6/25, awarded 6/26. Bids later on treatment plant, 1¼ mi. 10 in. feeder mains, pump house, water softener. Warren & Van Praag, 450 Standard Bldg., Decatur, Ill., consult. engrs. CD 6/19—ENR 7/12/45.

Kan., South Hutchinson—City, municipal water sys., to Burt & Binford, 507 W. 2 St., Hutchinson. **$106,467.** A. W. Hefling, city engr.

Mass., Bellingham—Town., Bd. Selectmen, Town Hall, 10,000 ft. of 6 and 8 in. watermains, transit pipe, Wrentham and Locust Sts., to Joseph Butera Constr. Co., 36 Warwick St., Woonsocket, R. I., **$26,000.**

Minn., Roseau—Village, H. Monsrud, clk., furnishing, installing 200,000 gal. elevated steel tank, to Chicago Bridge & Iron Co., 2101 McCormick Bldg., Chicago, Ill., **$33,775**; constructing pump. station, incl. electric wiring and controls and furnishing, installing about 7,000 lin. ft. 10 in. c.i. feeder main, etc., to K. Grahn, Roseau. **$42,189.** CD 6/19.

Mont., Columbia Falls—Town, Mrs. Margaret Grist, clk., Town Hall, 22,000 ft. 12 in. water supply line to John O'Connor and John M. O'Connor, Columbia Falls. **$42,565.** CD 11/8—ENR 11/29.

O., Newton Falls—Village, 500,000 gal. water tank, to Pittsburgh-Des Moines Constr. Co., Neville Island, Pittsburgh, Pa. **$49,900.** Awarded 7/6.

Okla., Oklahoma City—City, City Hall, watermain exten., in Park Estates Addn. at N. E. 36 and Prospect Sts. to Wolfe-Nunn Co., 5100 Bell Isle St., **$58,610.** Est. $60,000. R. Lee, City Hall, city engr. Awarded 6/26.

Ore., Oak Grove—Oak Lodge Water Dist., 12 and 16 in. welded steel pipe for water sys., to Oregon Culvert & Pipe Co., 2321 S.E. Gladstone St., Portland. **$76,063.** Bids 6/3. CD 5/22.

R. I., Narragansett—State, Div. Parks & Forest, State House, Providence, salt water supply for aquarium, Scarborough Beach, to C. L. Guild Constr. Co., 54 Water St., Providence. Est. **$60,000.** Bids 5/17. CD 5/8—ENR 5/16.

S. C., Beaufort—City, Comrs. P. Wks., City Hall, WW imprvs., to C. A. McDaniel, Columbia. **$90,313.** Bids 7/2. CD 6/21—ENR 6/27.

Tex., Raymondville—City, c/o C. R. Huff, mayor, W. W. imprvs., incl. filtration plant addn., earthern supply reservoir, to Fitzgerald, Newton & Carey, McAllen, **$96,928**; 300,000 gal. elevated tank to Chicago Bridge & Iron Co., Houston, **$32,820.** CD 6/18—ENR 6/27.

SEWERS, WASTE DISPOSAL

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 20

Alta., Elnora—H. J. Protheroe, municipality secy., sewerage and sewage disposal plant, water supply sys. for hospital. C. S. Burgess, 801 McLeod Bldg., Edmonton, archt.

Bids Asked July 23

Sask., Melfort—E. D. Carwardine, town clk., sewage disposal plant exten. $50,000. Plans deposit $20. Underwood & McLellan, 502 Grain Bldg., Saskatoon, engr. CD 3/2/45—ENR 3/15/45.

Bids Asked July 23

Ont., Crowland—W. P. Marshall, clk. Crowland Twp., 16 Steele St., 4,700 lin. ft. 12 and 18 in. sewers, etc., 2,000 lin. ft. 6 in. watermains, etc. $65,000. Plans deposit $25. CD 1/17—ENR 2/7.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks $22,500; other public works $40,000; industrial buildings $55,000; other buildings $205,000.

Classes of Construction

(Name in order of Listing)

Water Supply	Latin America
Sewers, Waste Disposal	Public Buildings
Bridges	Commercial Buildings
Streets & Roads	Industrial Buildings
Earthwork, Waterways	Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineers or architects.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

Bids Asked July 24

Calif., Mill Valley—City, City Hall, sewage pumping station. Over $40,000. Plans deposit $25. J. S. Bates, 3134 Eton St., Berkeley, engr. CD 10/4/45—ENR 10/18/45.

Bids Asked July 29

La., New Orleans—Bd. Superva. Garbage Dist. 1, 600 Helois Ave., Metairie, garbage incinerator. Plans deposit $25. Former bids rejected. Applewhite & Steinwinder, 424 Millandon St., engrs. L. B. **$43,940** CD 3/22/46—ENR 3/29/45.

Bids Asked August 5

Mo., Columbia—City, C. G. Caldwell, clk., sewage treatment plant with auxiliaries and appurtenances, outfall sanitary sewer, $150,000, storm sewers, ranging in size from 48 in. to double 5x7 ft. box sewers, $80,000. Russell & Axon, 6635 Delmar Blvd., University City, St. Louis, Zone 5, engrs.

Bids Asked August 6

Conn., Stratford—Town, H. B. Flood, town mgr., East trunk sewer line. Over $40,000. Bowe Albertson & Assoc., 110 Williams St., New York, N. Y., engrs. CD 10/31—ENR 11/29.

Bids Asked August 27

★†**Virgin Islands**—R. B. Newman, Jr., deputy comr. for Construction, Bureau of Community Facilities, F.W.A. Federal Works Bldg., Wash. 25, D. C., sanitation and fire protection facilities Proj. 2 and intercepting sewers Proj. 3 at Charlotte Amalie, St. Thomas. $800,000. Plans deposit $50. Extended date. R. L. Kenan & Assoc., Bell Bldg., Montgomery, Ala., consult. engrs. CD 5/29—ENR 6/6.

LOW BIDDERS

†**Ga., Dublin**—Yards & Docks Annex, Navy Dpt., Arlington, Va., received no bids June 27, repairing altering sewage disposal plant at Naval Hospital.

Ill., Urbana—W. M. Kunsch, Urbana-Champaign Sanitary Dist., Urbana, July 2, interceptor sewer imprvs., Sect. 2, interceptor line from Coler Ave. to Columbia and Neil Sts. from Angelo Dovigi, Berwyn, **$297,835*****Sect. 3, from Southwest Walter St. to Michigan and Race in southwest Urbana, from W. L. Hall, Atwood, **$98,899*****both sections, from Square Const. Co., 115 S. Haven St., Baltimore, Md. **$249,000.** CD 6/6.

★**N. Y., Brooklyn**—President Brooklyn Boro, Boro Hall, June 23, storm outlet sewer across Shell Rd., storm and sanitary sewers in Shell Rd., north service road of Circumferential Pkwy., Ave. Z, W. 3 and West Sts., etc. from A. Paino & Co., Inc., 1835 E. 14 St., Brooklyn, Zone 29. **$1,372,606.** CD 5/37—ENR 5/30.

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, June 25, combined sewer in Glenwood Rd., E. 81 and 84 Sts., from A. Paino & Co., 1835 E. 14 St. **$125,318.** CD 6/19.

S. C., Charleston—North Charleston Public Service Comn., c/o F. O. Smith, chn., July 1, sewerage sys. from Dixie Constr. Co., 747 Wheaton St., Savannah, Ga., Sect. 1, **$130,583**; Sect. 2, **$93,528**; Sect. 3, **$256,505.** Total $480,616. CD 6/13—ENR 6/20.

Pa., Norristown—State Dpt. Property & Supplies, Capitol Bldg., Harrisburg, July 3, main trunk sewer at Norristown State Hospital from The Conduit & Foundation Corp., 700 S. Schuylkill Ave., Phila., **$139,400.** Est. $100,000. CD 6/19—ENR 6/27.

Tex., Dallas—City, storm sewers in Live Oak St., from Texas Bitulithic Co., 11 Commerce St. **$88,296.** CD 6/12.

CONTRACTS AWARDED

Conn., Bridgeport—City, City Hall, trunk sewer line, Pitt St., to Palmer Tarinelli, 144 Island Brook Ave. **$63,488.** H. Rowland, City Hall, engr. CD 5/29—ENR 5/31.

★**D. C., Wash.** — District Comrs., District Bldg., Piney Branch relief sewer, to Square Constr. Co., 115 S. Haven St., Baltimore, Md. $536,415. Bids 6/11. CD 6/17—ENR 6/20, under LB.

Kan., Salina—City, Woodland storm sewers to H. J. Taylor Constr. Co., United Bldg. **$99,383.** Bids 6/24. H. F. Harper, city engr.

★**Md., Baltimore**—City, City Hall, addnl. facilities at Black River Sewage Plant to J. Matriciani, 229 Exeter St. **$646,875.** Bids 6/27. CD 7/2—ENR 7/11, under LB.

†**N. Y., West Point**—U. S. Eng., 120 Wall St., New York, Zone 5, sewage disposal facilities at U. S. Military Academy, to Horn Constr. Co., Inc., 291 Bway., New York, Zone 7. **$273,000.** CD 6/7.

O., Toledo—City, City Hall, grading, paving, installing sewers in 5 veterans housing sites at Manhattan Blvd., Scott High School, Walte

SEWERS, Etc. (Contracts Awarded, Cont'd)

High School, Whlys Park, and Anthony Wayne Trail at Woodsdale Ave., to Toledo Sewer & Excavating Co., 941 Elbon St., **$81,642**. Est. $88,789. Bids 5/28. J. M. Curtis, city sewer engr.

Tex., Groom—City, I. C. Unsell, mayor, City Hall, sanitary sewerage sys. collection lines and disposal plant, to Amarillo Bridge Co., Amarillo. Approx. **$43,000,** incl. materials. Est. $70,000. CD 5/3.

Wis., Black River Falls—City, City Hall, storm sewers, to Friede Bros. Constr. Co., Reedsburg. **$38,952.** Bids 6/4. H. C. Amundson, Baraboo, engr.

Wis., Granville (P.O. Milwaukee)—Town, 7717 W. Good Hope Rd., Zone 9, sanitary sewers N. 63, 49, 53, 52 Sts., N. Cedarburg Rd., and West Silver Spring Dr., to Geo. Carlson Co., 4041 N. Montreal St., Zone 9. **$48,836.** Bids 5/31. CD 5/24.

Wis., Manitowoc—Manitowoc Co., A. Tetzlaff, clk., Manitowoc, sanitary sewer to new county asylum, to Gray-Robinson Constr. Co., 819 S. 15 St. **$16,285.** Bids 6/24. E. Walter, Manitowoc, engr.

Que., Courville—Municipality of Courville, and St. Gregoire de Montmorency, sewer extens., to Union des Carrieres et Pavages, Ltd., 48 2 Ave., Quebec City, approx. **$65,000.** C. Lessard, 32 Blvd. des Allies, Quebec City, engr.

BRIDGES

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 22

Connecticut—State Hy. Dpt., Hartford, 123 ft. steel girder bridge over Willimantic River, 78 ft. bridge over Central Vt. R. R. tracks, 2,148 ft. bituminous macadam Perkins Corner Rd; Coventry-Mansfield.

Bids Asked July 23

Iowa—State Hy. Comn., Ames, bridges, culverts as follows, 1 rein.-con. box culvert exten., 7 rein.-con. pipe entrance culverts, 1 rein.-con. pipe roadway culvert, grading 0.34 mi. along U. S. 20, Proj. FN-62, Black Hawk Co.; 2 rein.-con. box culverts, on County Trunk Rd. A out of Quasqueton east, south and east, Proj. S-130 (2), 2 rein.-con. box culvert and exten., on County Trunk Rd. D Proj. S-246 (2), both Buchanan Co.; 14 rein.-con. box culverts and extens., on County Trunk Rds. H and M out of Bristow North, Proj. S-865 (1), Butler Co.; 1 rein.-con. box culvert on County Trunk Rd. N Proj. S-848 (1), Calhoun Co.; 31 rein.-con. box culverts and extens., raising headwalls on 1 rein.-con. box culvert, Iowa 3, Proj. F-358 (6), Delaware Co.; 11 rein.-con. box culvert extens., on County Trunk Rd. C from Iowa 154 south, Proj. 2-873 (1), Fayette Co.; 2 rein.-con. box culverts and flume, on Local Rd. from Iowa 35 west of Ida Grove, northerly, Proj. S-980 (1), Ida Co.; 2 rein.-con. box culvert extens., on County Trunk Rd. C, FAS-809-A (1), Madison Co.; 8 rein.-con. box culverts and exten., 1 drop outlet and 1 drop inlet for concrete pipe culvert, on County Trunk Rd. C from point east of Cedar River bridge, easterly toward Muscatine, Proj. S-280 (1), Muscatine Co.; 5 rein.-con. box culvert extens., on County Trunk Rd. A, Proj. S-927 (1), 1 rein.-con. box culvert exten., on County Trunk Rd. J, Proj. S-286 (3), both Palo Alto Co.; 120x20 ft., continuous concrete girder or alternate continuous I-beam bridge over Grand River, Sect. 11, County Trunk Rd. C, Dodge Twp., Proj. S-794 (1), Union Co.; 5x4x47 ft., rein.-con. box culvert, 80x30 ft. deck girder bridge or alternate 16x14x62 ft. rein.-con. box culvert, on Iowa 9 Proj. F-884 (1), Winnebago Co.; one 20 x 22 ft. I-beam bridge, etc. on Iowa 9 west of Fertile between Sec. 28/33 Fertile Twp. and on local road approach to Iowa 9 bettween Sec. 28/29, Fertile Twp., Proj. F-268 (5), Werth Co.; all foregoing under $40,000 each. F. R. White, Ames, ch. engr.

Bids Asked July 24

Louisiana—State Dpt. Hys., Baton Rouge, reconstructing superstructure creosoted timber trestle span bridges 0.356 mi. S.P. 17-02-12, North Pass and Owl Bayou Bridges, State Route 33, Tangipahoa Parish. Plans deposit $1.50.

Bids Asked July 24

New York—Bureau of Contracts & Accounts, Dpt. P. Wks., Albany, soil explorations and foundation investigations for Bridge E-170 Long Pond Rd. and Bridge E-172 Manitou Rd.; adv. ENR 7/18.

Bids Asked July 30

Indiana—State Hy. Comn., J. H. Lauer, chn., Indianapolis, 5 span rein.-con. girder bridge and 0.041 mi. approach grading, paving over NYC Ry., northeast of LaPorte, Contr. 2711, LaPorte Co.; 1 span (twin structures) bridge over Little Pigeon Creek, north of State Rd. 57 and 0.246 mi. approach grading, paving, Contr. 2713, Vanderburgh Co.; 1 span bridge and 0.199 mi. approach grading, paving, over Koehler Ditch south of Boonville, Contr. 2723, Warrick Co.; 1 span bridge, over Little Cicero Creek, east of Sheridan, Contr. 2731, Hamilton Co.; 1 span steel beam bridge, 0.066 mi. approach grading, paving over Little Pigeon Creek, north of State Rd. 57, Contr. 2714, Vanderburg Co.; 1 span bridge and 0.209 mi. approach grading, paving, over Hamilton Ditch, Contr. 2728, Greene Co.; 1 span bridge, 0.227 mi. approach grading, paving over Ramp Run, north of new Winchester, Contr. 2729, Hendricks Co.; 1 span bridge, and 0.204 mi. approach grading, paving over Robert Ditch, east of Crown Center, Contr. 2730, Morgan Co., 1 span rein.-con. arch bridge, 0.038 mi. approach grading, paving over Gaff Ditch, east of U. S. Rd. 41, Contr. 2732, Newton Co.; 1 span bridge, 0.038 mi. approach grading, paving over Big Monon Creek, Contr. 2724, White Co.; 1 span bridge, 0.017 mi. approach grading, paving over Martin's Ditch, east of New Haven, Contr. 2725, Allen Co.; 1 span bridge, 0.115 mi. approach grading, paving over Indian Creek, 3.2 mi. east of State Rd. 47, Contr. 2726, Montgomery Co.; 1 span bridge, 0.057 mi approach grading, paving over A Lateral to Pond's Flat Ditch, north of State Rd. 57, 1 span, rein.-con. girder bridge, (twin structures), 0.057 mi. approach grading and paving over Pond's Flat Ditch, north of State Rd. 57; and 1 span, rein.-con. arch bridge, 0.060 mi. approach grading, paving, over Drainage Ditch, north of State Rd. 57, Contr. 2712, Vanderburgh Co.; 1 span, steel truss bridge, 0.313 mi. approach grading, paving over Wildcat Creek, Contr. 2727, Howard Co. Plans deposit $2.75 each. C. E. Vogelsang, c/o owner, ch. engr.

Wisconsin—State Hy. Comn., Madison, Biarar Bridge, Chippewa Falls-Bloomer Rd., Chippewa Co.

Bids Asked July 31

N. Y., New York—President Manhattan Boro, Municipal Bldg., Zone 7, constructing viaduct foundations and superstructure for elevated public highway with ramp approaches in West and Marginal Sts. from Barclay to Rector Sts. Plans deposit $50.

Bids Asked August 2

Pennsylvania—State Hy. Dpt., Harrisburg, substructure for rein.-con. deck I-Beam bridge and grading, drainage 3,330 ft. from point ½ mi. from Lester East to point ⅝ mi. west of Phila. city line on Industrial Hy., Tinicum Twp., Delaware Co. Plans deposit $2.50. T. C. Frame, ch. engr.

Bids Asked August 15

†**Oklahoma**—Bureau Reclamation, Altus, constructing bridges, culvert and drainage inlets, drain "C", Altus Proj., Spec. 1426.

SOON LETS CONTRACT

Va., Radford—Norfolk & Western Ry. Co., W. P. Wiltsee, ch. engr., Roanoke, Zone 17, soon lets contract railroad bridge over New River.

LOW BIDDERS

Connecticut—State Hy. Dpt., Hartford, July 8, bridges, North Haven, from M. A. Gammino Constr. Co., 728 Valley St., Providence, R. I., **$149,011*****North Haven, from Mariani Constr. Co., 222 Forbes Ave., New Haven, **$63,834*****Vernon, from D. Arrigoni, 605 Main St., Middletown, **$146,036.** Received no bids July 8, bridge, approaches, North Canaan. CD 6/28—ENR 7/4.

★†**Illinois**—U. S. Eng., 800 U. S. Court House & Custom House, 1114 Market St., St. Louis, 1, Mo., July 2, vehicular bridge serving hy. traffic only over Chain of Rocks Canal, relocation of U. S. Hy. 66, Madison Co., from Bushman Constr. Co., P. O. Box 107, St. Joseph. **$1,585,010.** CD 6/10-ENR 6/13.

Indiana — State Hy. Comn., Indianapolis, July 2, bridges, etc. Contr. 2719, Wabash Co., from Denniston & Garber, Rochester, **$273,538,** est. $290,893***Contr. 2718, Greene Co., from R. L. Schutt, 213 E. New York St., Indianapolis, **$65,603,** est. **$70,382*****Contr. 2717, Greene Co., from R. P. Olinger, Huntingburg, **$59,876,** est. $64,966, State Hy. Comn., Indianapolis, rejected bids July 2, bridges, Contr. 2714, Vanderburgh Co.; Contr. 2716 and Contr. 2715, Monroe Co.; Contr. 2713, Vanderburgh Co., will readvertise. Received no bids July 2, bridges, Contr. 2712, Vanderburgh Co.; Contr. 2711, LaPorte Co., will readvertise. CD 6/12—ENR 6/20.

Iowa—State Hy. Comn., Ames, rejected bids May 28, bridge S-903 (1), Polk Co. LB **$189,915.** CD 6/4—ENR 6/6 under LB.

Louisiana—State Dpt. Hys., Baton Rouge, July 3, bridges over Stumpy Bayou, Patout Bayou and Warehouse Bayou, Lydia—Weeks Island Hy., Rte. 157, Iberia Parish, from Ray R. Littrell, Opelousas. **$161,480.**

Mass., Barnstable—Town, July 2, constr. Oyster Harbor Bridge, steel girder bascule span and approaches, from Berke-Moore Co., Inc., 11 Boylston St., Brookline, **$206,740.** Est. $200,000. CD 6/19—ENR 6/27.

New Jersey—State Hy. Dpt., Trenton, July 10, bridge and approaches, East Paterson-Fairlawn, Bergen Co., from Ell Dorer Constr. Co., 644 Nye Ave., Irvington. **$256,402.** CD 6/18—ENR 6/20.

North Carolina — State Hy. & P. Wks. Comn., Raleigh, rejected bids June 25, structures, 6,184 mi. hy. Proj. 2226, Duplin Co. L. B. **$35,363.** CD 6/17—ENR 6/20.

South Carolina—State Hy. Dpt., Columbus, rejected bids June 25, bridge over Broad River near Gaffney, Cherokee Co. L. B. $171,595; bridge over Saluda River and bridge over George's Creek, Greenville and Pickens Counties, L. B. **$192,368.** CD 7/1—ENR 7/11, under LB.

CONTRACTS AWARDED

★**Illinois** — State Div. Hys. Springfield, fabrication and delivery f.o.b. Rock Island or Milan, structural steel for North Channel of Rock River, steel arch and girder bridge, Middle Channel of Rock River, steel girder bridge, South Channel of Rock River steel arch and I-beam Bridge, and Mill Creek and I & M Canal steel girder bridge on S.B.I. Rte. 3 (U. S. Rte. 67), Rock Island Co., to Bethlehem Steel Co., 400 N. Michigan Ave., Chicago. **$626,789.** Bids 6/7, awarded 7/2. CD 5/28 under BA—ENR 5/23 under LB (rej.).

Ill., East St. Louis—East Side Levee & Sanitary Dist., D. Foley pres. Bd. Trustees, 628a Missouri Ave., rein.-con. bridge across proposed Lansdowne storm water channel along U. S. 67 (Illinois No. 4) and bridge along U. S. 40 (Illinois No. 11), across Lansdowne storm water channel, etc., to Keeley Bros. Contg. Co., 4211 State St. $43,350 and **$48,586** respectively. CD 5/22—ENR 5/30.

★**New York**—Bureau Contrs. & Accounts, Albany, Zone 1, bridge, 0.49 mi. Bronx Co., to Rusciano & Son Corp., 728 E. 212 St., New York, Zone 67, **$1,658,488.** Bids 5/29. CD 6/3—ENR 6/6, under LB.

STREETS AND ROADS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 22

Connecticut—State Hy. Dpt., Hartford, 12,080 ft. rein.-con. paving Wilbur Cross Parkway, Meriden.

Bids Asked July 23

Ill., Berwyn—City, City Hall, 36 in. concrete paving 14,358 sq. yd., 4,057 cu. yd. spec. excav., 6,861 lin. ft. comb. concrete curb and gutter, etc. 0.6228 mi. Sect. 25-CS. Plans deposit $10. E. Hancock, City Hall, engr.

Indiana—State Hy. Comn., J. H. Lauer, chn., Indianapolis, grading, structures 2.785 mi. State Rd. 37, north of Bloomington, Contr. 2690, Monroe Co.; rein.-con. paving 3.998 mi. State Rd. 157, north from junction with state Rd. 45, west of Scotland, Contr. 2692, Green Co.; rein.-con. paving and bridge 24 ft. dual lane, 1.728 mi. State Rd. 40, Richmond, Ind. to Indiana-Ohio state line, Contr. 2710, Wayne Co. Plans deposit $7.75 each. C. E. Vogelsang, Indianapolis, ch. engr.

Ind., Elkhart—Bd. P. Wks., E. S. Sears, clk., City Hall, asphaltic concrete or sheet asphalt on 6 in. concrete paving or brick on concrete paving Maple Row, Arcadia and Erivin Aves. $48,000. Plans deposit $10. E. M. Brady, City Hall, city engr.

Iowa—State Hy. Comn., Ames, paving, incidental work, 8.492 mi. on relocation of Iowa 17, Proj. F-10 (7), Calhoun Co., over $40,000; grading 4.499 mi. County Trunk Rd. A, Proj. S-130 (2); 3.95 mi. County Trunk Rd. D, Proj. S-246 (2), both Buchanan Co.; 8.087 mi. County Trunk Roads H and M out of Bristow North, Proj. S-865 (1), Butler Co.; 3.457 mi. County Trunk Rd. N Proj. S-848 (1), Calhoun Co.; 2.119 mi. Local Rd., from point near east ¼ Cor. Sec. 18-80-4, north to County Trunk Road N, Proj. S-960 (1), Cedar Co.; 6.973 mi. Iowa 3, Proj. F-358 (6), Delaware Co.; 3.304 mi. County Trunk Road A Proj. S-769 (1), Dickinson Co.; 5.295 mi. County Trunk Rd. C, Proj. S-873 (1), Fayette Co.; 0.711 mi. County Trunk Rd. K, Proj. S-197 (2), 8.949 mi. County Trunk Rd. E, Proj. S-883 (1), both Hancock Co.; 2.73 mi. Local Rd. from Iowa 35 west of Ida Grove northerly to near E ¼ Corner Sec. 33-80-40, Proj. S-980 (1), Ida Co.; 1.748 mi. County Trunk Rd. C Proj. FAS-809-A (1), Madison Co.; 7.674 mi. County Trunk Rd. C, Proj. S-280 (1), Muscatine Co.; 5.745 mi. County Trunk Road A, Proj. S-927 (1), and 3.005 mi. County Trunk Rd. J, Proj. S-286 (3), both Palo Alto Co.; 0.471 mi. local road from County Trunk Rd. B east into Fernals, Proj. FSN-104,; 3.815 mi. County Trunk Rd. B, FAS-831-A (1), 3.652 mi. County Trunk Rd. Y, Proj. FAS-836-A (1), all foregoing in Story Co.; 4.712 mi. County Trunk Rd. R and local road from Jefferson Co. line toward Stockport, Proj. S-703 (2), Van Buren Co.; surfacing 4.499 mi. County Trunk Rd. A, Proj. S-130 (2), 3.96 mi. County Trunk Rd. D, Proj. S-246 (2), both Buchanan Co.; 8.087 mi. County Trunk Rds. H and M, Proj. S-865 (1), Butler Co.; 3.457 mi. County Trunk Rd. N, Proj. S-848 (1), Calhoun Co.; 2.119 mi. local road from near E. ¼ corner Sec. 18-80-4 north to County Trunk Rd. N, Proj. S-960 (1), Cedar Co.; 6.973 mi. Iowa 3, Proj. F-358 (6), Delaware Co.; 3.304 mi. County Trunk Rd. A, Proj. S-769 (1), Dickinson Co.; 5.295 mi. County Trunk Rd. C, Proj. S-873 (1), Fayette Co.; 2.73 mi. local road from Iowa 35, west of Ida Grove, northerly to near E. ¼ corner Sec. 33-80-40, Proj. S-980 (1), Ida Co.; 3.55 mi. on Iowa 113, Proj. FN-830, Jackson Co.; 1.748 mi. County Trunk Rd. C, Proj. FAS-809-A (1), Madison Co.; 7.671 mi. County Trunk Rd. C, Proj. S-280 (1), Muscatine Co.; 5.745 mi. County Trunk Rd. A, Proj. S-927 (1), 3.005 mi. County Trunk Road J, Proj. S-286 (3), both Palo Alto Co.; 4.745 mi. County Trunk Rd. B Proj. S-267 (4), Scott Co.; 4.712 mi. County Trunk Rd. R, Proj. S-703 (2), Van Buren Co. all foregoing under $40,000. F. R. White, Ames, chf. engr.

STREETS, etc. (Bid Asked, Cont'd.)

Minn., Jackson—C. H. Peterson, aud. Jackson Co. grading 9 mi. State Aid Rd. 7 from Round Lake corner to Sioux Valley School, C. P. 46:01; 4 mi. County Aid Road 33 from SE. corn. Sect. 11-101-37, north to Trunk Hy. 16, C. P. 46:02; 2 mi. County Aid Rd. 3 from SW Cor. Sect. 15-103-35, C. P. 46:03. Over $40,000. R. N. Forsberg, co. hy. engr.

Virginia—State Dpt. Hys., Richmond, 0.91 mi. waterbound macadam surface treatment and bridge over Occuquan Run. Route 234, S.P. S-1111-CRI, FBI, Prince William Co.; 3.45 mi. Route 275, S-1377-F, B2, Loudoun Co.; 2.55 mi. and bridge over Carr Creek, Route 64, S.P. S-1252-A1, 3, B3. Russell Co.; waterbound macadam surface treatment 1.72 mi. Route 57, S.P. S-1102-D1, Henry Co.; 2.23 mi. Route 70, S.P. 94-BR-3, Wise Co.; 0.55 mi. over New River, Route 11, S.P. SN-FAI-497-M1, B2, AR1, Fed. Proj. SN-FAI-449 (8), Montgomery, Pulaski and City of Radford; rein.-con. paving 1.53 mi. and 1.04 mi. surface treatment and macadam, Route 350 & 7, S.P. SN-A-SN-U-FAP-1400-C, B-1, 1426-A, B1; 1426-A, B1, Fed. Proj. SN-A-SN-U-FAP-87 (2), FAP 208 (3), Fairfax Co. Plans deposit $5 each.

Bids Asked July 24

Louisiana—State Dpt. Hys., Baton Rouge, shaping roadway and washed gravel surface course 28.85 mi. S.P. 8-91-04-03-359-05-02, 91-07-01 and 124-01-04, Readheimer-Pine Ridge Coldwater Pine Ridge-Dodson-Sikes and Winnifield Gaars Mills Hys., State Routes 608, 231 F-110-234, Natchitoches and Winn Parishes; cleaning ditches, reconstructing base course, sand clay gravel base course and three-application bituminous surface treatment 0.137 mi. S.P. 714-00-18 Street in Cecilia, State Route C-2132, St. Martin Parish; shaping roadway and shell surface course 3.8 mi. S.P. 826-11-01 Peters Rd., State Route C-1460, Jefferson Parish. Plans deposit $1 each.

Louisiana—State Dpt. Hys., Baton Rouge, soil-cement base course, 3-application bituminous surfacing 4.446 mi. Mer Rouge-Oak Grove Hy., Rte. 11, SP 37-02-07, Proj. S-190 (1), West Carroll Parish; 400 cu. yd. washed gravel furnished spot-dumped on road in Ward 3, SP 703-01-88, Avoyelles Parish.

Bids Asked July 25

Minn., Willmar—P. Heimdahl, aud., Kandiyohi Co., grading 8.45 mi. between South County Line, south of Roseland and SAR 3, SP 34-504-03 (SAR 5) Minn. Proj. S-102 (2) and grading 6.2 mi. between Trunk Hy. 7 and TH 23, in Raymond, SP 34-506-02 (SAR 7) Minn. Proj. S-222 (1) and S-276 (1). Over $40,000 each. Plans deposit $15 and $1.80 respectively. O. L. Kipp, ch. engr. State Hy. Dpt., St. Paul, engr. CD 7/3—ENR 7/11, under LB.

New Hampshire—State Hy. Dpt., Concord, grading, drainage, road mix surfacing 3.99 mi., surface treated gravel 0.18 mi., 30 ft. rein.-con. bridge, 41 ft. flat slab on I-beam bridge, Baboosic Rd., Rte. 13, Brookline, SN-FAS-S (17) (1). Plans deposit $10; surface treated graveling or bituminous stabilized graveling 2.543 mi. Windham and Derry, SAC 1632, Plans deposit $3.

Bids Asked July 26

Minn., Albert Lea—A. C. Hartz, aud., Freeborn Co., grading 6.4 mi. between South State line 6.5 mi. east of Emmons and 6.5 mi. north, 164,513 cu. yd. excav., S. P. 24-507-02 (S.A.R. 7), Minn. Proj. S-171 (1). Over $40,000. Plans deposit $1.10. O. L. Kipp, ch. engr. State Hy. Dpt., St. Paul, engr.

Minn., Breckenridge—Wilkin Co., E. T. Anderson, aud., Breckenridge, grading, gravel surfacing 7.4 mi. road between 2.5 mi. east of Kent and 3.3 mi. north, and between S.A.R. 2 and 4 mi. east, S.P. 84-502-02 (S.A.R. 2), Minn. Proj. S-161 (1) and S. P. 84-503-02 (S.A.R. 6), Minn. Proj. S-111 (2). Over $40,000. Plans deposit $2. O. L. Kipp, ch. engr. State Hy. Dpt., St. Paul, engr.

Minn., Redwood Falls—Redwood Co., I. R. Rogers, aud., grading 9.7 mi. road between north limits of Clements and Trunk Hy. 93, 169,407 cu. yd. excav., S.P. 64-512-02 (S.A.R. 1), Minn. Proj. S-257 (1). Over $40,000. Plans deposit $2.15. O. L. Kipp, ch. engr. State Hy. Dpt., St. Paul, engr.

Minn., St. Cloud—Stearns Co., F. Rambler, aud., grading, concrete culvert and bituminous stablized base 9.3 mi. road between Sartell and 1/3 mi. north. Over $40,000. Plans deposit $1.45. O. L. Kipp, ch. engr. State Hy. Dpt., St. Paul, engr. CD 2/17/44—ENR 3/9/44.

Tex., Winnsboro—J. E. Old, mayor, City Hall, street paving. $75,000. H. S. Berlin, 225 Majestic Bldg., Fort Worth, engr. CD 4/4—ENR 4/18.

Bids Asked July 30

Indiana—State Hy. Comn., J. H. Lauer, chn., Indianapolis, rein.-con. paving 4.211 mi. State Rd. 41, from north of State Rd. 57 to north of Hillsdale, Contr. 2687, Vanderburgh Co.; 4.219 mi. State Rd. 41, north of Hillsdale to north of Vanderburgh-Gibson Co. line, Contr. 2688, Vanderburgh and Gibson Counties; compacted aggregate surfacing 5.68 mi. State Rd. 129, from Cross Plains to Pleasant, Contr. 2708, Ripley and Switzerland Counties; 1.121 mi. State Rd. 39, Henryville, southeastward, Contr. 2709, Clark Co.; 3.217 mi. State Rd. 39, Springville, to north of LaPorte, Contr. 2733, LaPorte Co.; grading, structures, 4.173 mi. State Rd. 37 north of Bloomington, Contr. 2691, Monroe Co. Plans deposit $7.75 each.

Minn., Rochester—Frances L. Underleak, aud., Olmsted Co., imprv. 1.9 mi. between northwest corner of Sect. 16, Twp. 106 N., Range 14 W. and 1.85 mi. southwest, 86,052 cu. yd. Class A and 905 cu. yd. Class B excav., 2,070 cu. yd. traffic bound crushed rock wearing course. Over $40,000. Plans deposit 55c. O. L. Kipp, ch. engr, State Hy. Dpt., St. Paul, engr.

N. D., Williston—Bd. City Comrs., City Hall, paving and/or repaving certain streets, highways, avenues alleys, and public places within Dist. 5. Plans deposit $10. P. J. Hays, city engr.

Wisconsin—State Hy. Comn., Madison, grading, structure, gravel and bituminous sufacing 4.445 mi. Kaukauna-S.T.H. No. 163 Road, Denmark-Stangelville Rd., Kewaunee Co.; grading, draining, bituminous surfacing 3.795 mi. Tomah-Necedah-Wautoma Rd., West County Line-Coloma Rd., Waushara Co.; 2.234 mi. S.T.H. 79-Bloomer Rd., West County Line-Connorsville Rd., Dunn Co.; 2.831 mi. Martell-Spring Valley-Nenomonie Rd., Pierce and St. Croix Counties; grading, draining 7.943 mi. Black River Falls-Osseo Rd., Black River Falls-Hixton Rd., Jackson Co.; 3.873 mi. Mamie Lake-Black Oak Lake Rd., State Park Road Proj. 718.0 (1), Vilas Co.; grading, draining, base course and bituminous surfacing 0.836 mi. Elmwood-Glenwood Rd., Elmwood-Spring Valley Rd., Pierce Co.; gravel or crushed stone base course 8.65 mi. Westby-Black River Falls Rd., Cashton-Sparta Rd., Monroe Co.; grading, draining, temporary surfacing 6.112 mi. Bloomington-Lancaster Rd., Grant Co.; sand-gravel fill and base course 10.16 mi. Thorp-Jump River Rd., S.P. 47.0 (3), 14.182 mi. same road, S.P. 47.02 (2), both Taylor Co.

Bids Asked July 31

Tex., Houston—Harris Co., H. L. Washburn, aud., 2,000 sq. yd. 8-6-6 gravel concrete paving Post Oak Rd. from Vellaire Blvd S. to Main St., $159,240; approx. 4.48 mi. sand stabilized shell with bitulithic surface Waller-Tomball Rd. $130,775. Howe & Wise, Stewart Bldg. engrs CD 12/13/45—ENR 12/27/45.

Bids Asked August 2

Pennsylvania—State Hy. Dpt., Harrisburg, widening pavement with plain concrete base and/or crushed aggregate base 23,666 ft. from point 0.62 mi. from Johnston east to point 3.9 mi. from Rt. 276, from point in Franklin Boro east to point 1.1 mi. from Rt. 276, Stony Creek, Richland and Conemaugh Twps., Franklin Boro, Cambria Co.; rein.-con. paving 6.681 ft., incl. rein.-con. structure, between Salix and South Fork, Cambria Co.; rein.-con. paving 12,942 ft. between Bethel Hill and Skippack, Montgomery Co.; bituminous or crushed aggregate surfacing 1,450 ft. and rein.-con. deck I-Beam bridge between Octoraro and Homeville, Chester and Lancaster Counties; bituminous on crushed aggregate surfacing 12,432 ft., incl. reinforced and 1 plain concrete structures 12,432 ft. from Milton Boro east towards Montour Co. Line, Northumberland Co. Plans deposit $2.50 each. T. C. Frame, ch. engr.

Bids Asked August 5

La., New Iberia—City, P. A. Viator, mayor, concrete paving 32,692 sq. yd. Proj. 16-P-150; approx. 23,441 sq. yd. Proj. 16-P-145; approx. 7,041 sq. yd. Proj. C-101. Plans deposit $10. J. M. Rochel, engr. CD 11/29/45—ENR 12/13/45.

Bids Asked on or about August 6

†**S. D., Fort Randall**—U. S. Eng., 1709 Jackson St., Omaha, Neb., constructing Sect. 1 or East Access Rd. to Fort Randall Dam site. Extended date. CD 7/1—ENR 7/11.

Bids Asked August 24

Louisiana—State Dpt. Hys., Baton Rouge, grading, drainage structures, gravel surfacing, etc. 0.549 mi. S.P. 256-09-05, Geisman Levee Setback Hy., State Route 63, Ascension Parish.

LOW BIDDERS

★**California**—State Div. Hys., Sacramento, July 3 imprv. 4.5 mi., Stanislaus and San Joaquin Counties, from A. Teichert & Son, Inc., Box 1133, Sacramento, **$420,447**; 1.3 mi. Santa Clara Co., from Union Paving Co., 212 Babcock Bldg., San Francisco. **$183,663.** CD 6/6—ENR 6/13.

†**California**—Pub Rds. Admin., 720 Phelan Bldg., San Francisco, July 2, 2.443 mi. Proj. FH Calif 25-B, Nevada City, Downieville, Tahoe National Forest, Yuba Co., from A. Teichert & Son, Box 1133 Sacramento. **$210,-152.** CD 6/17—ENR 6/20.

Calif., Palo Alto—City, July 8, imprv. Cowper St., etc., Spec. 46-4, and Park Blvd., etc., Spec. 46-1, from Union Paving Co., 212 Babcock Bldg., San Francisco, **$284,463** and **$195,310**, respectively. F. S. Miller, city engr.

★**Connecticut**—State, W. J. Cox, hy. comr., Hartford, July 8, imprv. 14,362 ft. roads, Derby and Orange, from D. V. Frione & Co., Inc., 87 Foxon Rd., New Haven, **$613,786***** Wallingford and Meriden, from L. G. DeFelice & Son, Inc., Nettleton Ave., North Haven, **$30!,573*****2,635 ft. Newtown, from Osborne Barnes Co., 20 West St., Danbury, **$43,234***** 21,306 ft., Ridgefield, from D'Addario Constr. Co., 810 Sylvan Ave., Bridgeport, **$140,655***** 11,225 ft. Scotland, from Jones Constr. Co., 4 Union St., Willimantic, **$54,124*****14,462 ft., Stonington, from Callan Constr. Co., 539 Hope St., Bristol, R. I., **$40,683*****4,289 ft. and bridge exten., Trumbull, from Costello Constr. Co., 15 Pomfret St., Hartford, **$73,437*****23,402 ft. and bridge over Veits Brook and over Sandy Brook, Colebrook, from Oneglia & Gervaisini, Inc., 1 Casson Ave., Torrington, **$170,024.** CD 6/28—ENR 7/4.

Florida—State Hy. Dpt., Tallahassee, rejected bids June 27, bituminous road mix paving 2.023 mi. timber, steel splash walls across Choctawhatchee Bay Fill, SP Job 6004-902, Rd. 152, Walton Co. CD 7/2—ENR 7/11, under LB.

Ill., Pekin—E. Mitchell, supt. Hys., Tazewell Co. Court House, June 4, imprv. 57.18 mi. Twp. Rds. Group 1 and 27.04 mi. Twp. Rds. Group 2, from R. A. Cullinan & Son, Tremont. **$58,013** and **$42,282** respectively. CD 5/29.

Indiana—State Hy. Dpt., Indianapolis, July 2, improv. 5.586 mi. Contr. 2707, Henry and Hancock Counties, from A. L. Dougherty Co., 4122 E. Grand Blvd., East Chicago, **$213,124**, est. $237,426. CD 6/12—ENR 6/20 ***9.49 mi. Contr. M-2704, Delaware Co., from Indiana Asphalt Paving Co., 2810 Columbia Ave., Indianapolis, **$227,958**, est. $273,487*** 5.76 mi. Contr. M-2705, Delaware and Jay Counties, from Bontrager Constr. Co., 618 W. Indiana Ave., Elkhart, **$53,649**, est. $57,087*** 5.69 mi. Contr. M. 2722, Delaware and Jay Counties from W. L. Magaw, Hawkins Rd., Richmond, **$91,765**, est. $92,110, foregoing. CD 6/25—ENR 6/27 Rejected bids 7/2, imprv. 5.168 mi. Contr. 2708, Ripley and Switzerland Counties, L. B. **$181,560**; 1.121 mi. Contr. 2709, Clark Co., L. B., **$105,608**, CD 6/12—ENR 6/20.

★**Louisiana**—State Dpt. Hys., Baton Rouge, July 3, imprv. 1.584 mi. Jefferson Parish, from W. R. Aldrich & Co., Kalwrah University Gardens, Baton Rouge, **$71,681*****1.817 mi. Lafourche Parish, from R. B. Tyler Co., Slidell, **$41,471*****2.472 mi., Ouachita Parish, from J. O. Willett, Monroe, **$147,264*****31.462 mi., Union Parish, from Horton Pollard, Bossier City, **$56,344*****16.25 mi., Acadia Parish, from Roy M. Lilly, Fidelity Bank Bldg., Baton Rouge, **$118,408*****21.1 mi., Grant and La Salle Parishes, from Barber Bros., Reymond Bldg., Baton Rouge, **$138,592*****5.15 mi., Jackson Parish, from R. B. Tyler Co., Slidell, $73,890. CD 7/1.

La., Alexandria—City, July 1, paving 7 streets, from W. R. Aldrich & Co., Kalwrah University Gardens, Baton Rouge. **$68,684.** CD 6/5—ENR 6/13.

La., Jennings—City, June 27, concrete paving (Contr. 1), from Mid-South Const. Corp., 444 Audubon St., New Orleans, **$74,875**; soil cement asphalt surface paving, Contr. 2, from W. H. Patterson & Co., 2013 Olive St., Baton Rouge, Zone 1. **$57,914.** CD 5/29—ENR 6/6.

Maine—State Hy. Comn., Augusta, July 3, 6.61 mi. bituminous gravel, Monmouth-Winthrop, from C. C. Smith Co., Inc., 60 Rogers St., Cambridge, Mass. **$410,735.**

★**Massachusetts**—Commonwealth of Mass., Dpt. P. Wks., Boston, July 9, grading, drainage of slopes and misc. inc. work along Wm. F. McClellan Hy. in East Boston, Fed. Aid Proj. F I 241 (4) from Coleman Bros. Corp., 40 Central St., Boston, **$88,688**; reconstructing hy. in Lynn and Salem, Fed. Aid Proj. U 312 (5) from S. Rotondi & Sons, 140 Franklin St., Stoneham. **$432,601.**

Mass., Pittsfield—State, Berkshire Co. and Town of Pittsfield, 100 Nashua St., Boston, resurfacing section of hy. on East St. and W. Housatonic St., Pittsfield, from Petricca Constr. Co., 534 West St., **$48,920.** Est. $45,497.

Mo., Kansas City — City, c/o K. K. King, dir. P. Wks., City Hall, widening, resurfacing Wyandotte St. from 14 St. to Southwest Blvd., from Midwest Pre-Cote Co., 7600 E. 17 St., Kansas City, Mo. **$44,843.**

†**Nevada**—Pub. Roads Admin., 720 Phelan Bldg., San Francisco, Calif., received no bids July 2, imprv. 4.464 mi. Proj. Nev-HF-18-H, Owyhee River, Humboldt National Forest, Elko Co. CD 6/17—ENR 6/20.

★**New York**—H. A. Cohen, dir., Bureau Contracts & Accounts, Albany, Zone 1, July 10, imprv. 0.26 mi. Bronx Co., from Rusciano & Son Corp., New York, N. Y., **$638,875**, est. $650,000. Received no bids July 10, imprv. 0.5 mi. Nassau Co., **$570,000**; 4.99 mi. Schoharie Co., **$892,000**; 3.01 Westchester Co., **$1,143,000.** CD 6/26—ENR 7/4.

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Zone 2, June 10, imprv. Belvridge Rd., from Sicilian Asphalt Paving Co., 41 Park Row, New York, Zone 7, **$77,055**; Clifton Pl., St. Marks and Vernon Aves., 2 and 13 Sts., from B. Turecamo Constr. Co., Inc., foot of 24 Ave., Zone 14, **$74,521.** CD 5/31—ENR 6/6.

N. Y., Kew Gardens—President Bronx Boro, 120-55 Queens Blvd., Zone 15, July 3, reconstructing Horace Harding Blvd., Grand Central Pkway. to Rodman St. Bridge, from John Meehan & Sons, 90 West St., New York, Zone 6. **$230,208.** CD 6/28.

Oregon—State Hy. Comn., Salem, June 26, imprv. 1.18 mi. Marion Co., from Warren Northwest, Inc., Box 5072, Portland, **$139,892**; Josephine Co., from J. S. Risley, Milwaukie, **$46,969.** Rejected bids imprv. 6.18 mi. Multnomah Co. L. B. **$1,057,370**; 1.96 mi. Multnomah Co. L. B. **$35,735.** CD 6/18.

South Carolina—State Hy. Dpt., Columbia, rejected bids June 25, imprv. 0.711 mi. Hampton Co. L.B. **$26,269.** CD 6/12—ENR 6/20.

South Carolina—State Hy. Dpt., Columbia, rejected bids June 25, imprv. 3.977 mi. Union Co., L. B. **$187,178**; 6.736 mi. Lawrence Co.,

STREETS, etc. (Low Bidders, Cont'd.)

L. B. **$107,854**; 1.028 mi. Cherokee Co., L. B. **$48,837.** CD 7/1—ENR 7/11, under LB.

Tex., Dallas—City, asphalt street paving Cockrell, Alexander and other streets, from Austin Rd. Co., Eagle Ford Rd., **$75,621.**

Tex., Dallas—City, June 26, asphalt paving Amherst St., etc., from Texas Bitulithic Co., 111 Commerce St. **$88,187,** Est. $45,000.

Tex., Dallas—City, street paving and imprvs. on Live Oak St., from Texas Bitulithic Co., 11 Commerce St., approx. **$169,700.**

Tex., Hempstead — Montgomery Co., c/o judge, Courthouse, Hempstead, June 28, constructing 50 mi. roads, Rd. Dist. 7, and concrete bridges on 50 mi. roads drainage, from Brown & Root, Inc., P. O., Box 3, Houston, approx. **$317,957** est. $360,000 and approx **$128,600** est. $120,000 respectively. CD 6/20.

Tex., Tahoka—Lynn Co., T. Garrard, judge, various farm-to-market roads from Southern Contracting Co., 1901 Meadowbrook Dr., Austin, **$125,694.** Hasle & Green Eng. Co., Tahoka, engr. CD 6/27

★**Washington**—State Hy. Dpt., Olympia, July 2, imprv. 5.733 mi. Skagit Co., from Consolidated Constr., Port Orchard, **$78,303***** 16.7 mi. Lincoln Co., from Carbon Bros., P. O. Box 5025, Spokane **$153,312***29.7 mi. Kitsap and Mason Counties, from J. F. Forbes, Olympia, **$41,506***72.26 mi. Lincoln and Adams Counties, from McAtee & Heath, E. 3527 Trent St. Spokane, **$89,999***** 1.149 mi. King Co., from A. Osberg, 6206 Phinney St., Seattle, **$234,306***37.8 mi. Asotin, Benton, Franklin, Walla Walla and Yakima Counties, from Diesel Oil Sales Co., 2155 Northlake Ave., Seattle, **$86.782.** CD 6/19.

CONTRACTS AWARDED

Calif., San Mateo—City, City Hall, imprv. 39 Ave. and Edison St. and Mulryan Court, to Union Paving Co., 212 Babcock Bldg., San Francisco. **$42,037.** H. Porter, city engr.

Ill., Decatur—Clerk, Macon Co., imprv. 1.6782 mi. Sect. 11-MFT, to Collins Constr. Co., 810 S. Williams St. **$62,138.** Bids 6/14. CD 5/29— ENR 6/6.

Iowa—State Hy. Dpt., Ames, imprv. 8.17 mi. Proj. F896 (1) Washington Co., to Lowe Constr. Co., Marion, **$44,856.** Bids 5/28, CD 5/13—ENR 5/16.

Minnesota—State Hy. Dpt., St. Paul, bituminous surfacing 1 mi. Paynesville, S. P. **7305-15-Trunk Hy. 23-23 F 427 (18),** to **Ulland Bros., Austin. $46,156.** CD 5/29—ENR **6/6.**

Minn., Gaylord—Sibley Co., W. C. Oldenburg, aud., stabilized gravel base and bituminous wearing surface 4.8 mi. road between Henderson and Trunk Hy. 169 S. P. 72-501-04 (S. A. R. 6), FAS 73 A (2), to Judd Brown & E. Lundin, Mankato. **$50,017.** Bids 6/24. CD 6/5—ENR 6/13.

Mo., Columbia—City, asphalt resurfacing Broadway, to Flinn Paving Co., 1405 South 1 St., St. Louis, Zone 4, **$46,085.** CD 1/10/45—ENR 1/25/45.

★**New York**—Bureau Contrs. & Accounts, Albany, Zone 1, imprv. 3.46 mi. Onondaga Co., to D. W. Winkleman Co., Inc., and A. S. Wikstrom, Heffernan Bldg., Syracuse, **$593,733.** Bids 626 CD 6/28—ENR 7/4, under LB.

★**New York**—Bureau Contrs. & Accounts, Albany, Zone 1, imprv. 9.4 mi. Seneca Co., to Bero Engrg. & Constr. Corp., McKinley Bldg., Buffalo. **$853,719.** Bids 5/15. CD 5/17—ENR 5/23, under LB.

★**New York**—Bureau Contrs. & Accounts, Albany, Zone 1, imprv. 5.46 mi. Yates Co., to D. W. Winkelman Co., Inc., 205 Harrison St., Buffalo. **$694,905.** Bids 6/12. CD 6/14— ENR 6/20, under LB.

★**New York**—Bureau Contrs. & Accounts, State Office Bldg., Albany, Zone 1, imprv. 5.91 mi. Cortland Co., to Lane Constr. Co., 37 Colony Rd., Meriden, Conn. **$594,035.** CD 6/14—ENR 6/20, under LB.

★**N. Y., Brooklyn**—President Brooklyn Boro, Boro Hall, Contr. 1, Brooklyn-Queens Connecting Hy. from President to Congress Sts., to Charles F. Vachris, Inc., 827 Remsen St., Zone 12. **$2,260,206.** CD 5/17—ENR 5/23, under LB.

Okla., Guymon—City, O. S. Tyler, clk., grading, concrete paving 10 residential streets, to J. Ted Wilkerson, 509 N. W. 34 St., Oklahoma City, **$42,902.** Est. $44,000. Awarded 6/27. F. E. Devlin. Wicita, engr.

Okla., Oklahoma City—City, City Hall, grading, concrete paving 16 blocks Ceshion Place, S. Harvey, S. Hudson, SW 32 and SW 33 Sts., to Banta Constr. Co., 1646 W. Main St., **$73,247,** est. $74,000; asphalt paving 11 blocks SW 11, 12, 13 and 14 and S. Harvey Sts., to Spicer's, Inc., Briton, **$56,208** est. $56,500. Awarded 6/26. V. G. Thompson, Cotton Exchange Bldg., engrs. CD 7/20/44—ENR 8/10/44.

Oregon—State Hy. Comn., Salem, imprv. 68 mi. Deschutes, Lake and Harney Counties, to Del. R. Beebe, Eugene, **$67,884.** 4.43 mi. Washington Co., to Parker-Schram Co., Couch Bldg., Portland, **$173,640.** CD 6/18.

★**Oregon**—State Hy. Comn., Salem, imprv. 21.24 mi. Baker Co., and 20.56 mi. Baker and Malheur Counties, to Rogers Constr. Co., Box 149, Portland, **$266,465** and **$309,605** respectively. Bids 6/26.

★**Pennsylvania**—Commonwealth of Pennsylvania, Harrisburg, imprv. 0.18 mi. Penn-Lincoln Parkway, Allegheny Co., to Dinardo, Inc., 331 Bouquet St., Pittsburgh, **$1,005,178;** 1.74 mi. Penn-Lincoln Parkway, Allegheny Co., to Johnson, Drake & Piper, Inc., 86 Trinity Pl., New York, 6. N. Y., **$2,042,368.** CD 6/17— ENR 6/20, under LB.

Tex., Hondo—Medina Co., M. Rothe, judge, Hondo, constructing approx. 155 mi. roads and streets to McKenzie Constr. Co., Transit Tower, San Antonio, **$265,730.** Bids 6/29. W. J. Kelly, Hondo, engr.

Wash., Pullman—Washington State College, Pullman, **paving and surfacing streets** and constructing sidewalks, to Colonial Constr. Co., P. O. Box 1452, Spokane, **$111,856.**

Wis., Milwaukee—City, A. H. Hempe, ch. clk., City Hall, asphalt paving Burleigh St., to White Consolidated, Inc., 2543 W. Greves St., Zone 3. **$67,092.** Bids 6/28. CD 12/3/43— ENR 12/9/43.

Manitoba—Province of Manitoba, Winnipeg, grading, gravel base course, bituminous surfacing 8¼ mi. from Woodside to Gladstone, to Commonwealth Constr. Co., Ltd., 300 Royal Bank Bldg., Winnipeg. **$100,000.** Dpt. P. Wks., Winnipeg, engrs.

★**Northwest Territory**—Dpt. Mines & Resources, Ottawa, Ont., imprv. 80.9 mi. Grimshaw-Great Slave Lake Hy. between Hay River and Hay River settlement, to Bird Constr. Co., Ltd., 7 Ave. and Smith St., Regina, Sask. approx. **$1,240,000.** CD 5/24— ENR 5/30.

Ontario—Dpt. Hys., Toronto, grading, culverts, 3 mi. Hy. 66, various locations, to Caswell Constr. Ltd., 106 Government Rd. W., Kirkland Lake, Est. **$50,000.**

Ont., Crystal Beach—Village, J. O. Page, secy., paving, imprv. 9 roads, to Law Constr, Co., Ltd., 225 Sterling Rd., Toronto, approx. **$40,000.**

Ont., Port Arthur—City, W. B. McComber, clk., 7 in. concrete paving Banning, Dufferin, Court and Prospect Sts., to Hewitson Constr. Co., Ltd., 509 Public Utilities Bldg., **$90,643.** CD 3/21—ENR 4/4.

EARTHWORK, WATERWAYS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 23

Mich., Lyon Twp.—Huron-Clinton Metropolitan Park Auth., 2456 Penobscot Bldg., Detroit, constructing Kent Lake dam, involving 1,350 cu. yd. excav., 3,300 sq. ft., steel sheet piling, 990 cu. yd. rein.-con., 23 tons structural steel, 4,300 ft. earth fill. Plans deposit $20. Ayres, Lewis, Norris & May, 506 Wolverine Bldg., Detroit, engrs.

Bids Asked July 25

†**Washington**—Bureau Reclamation, Coulee Dam, constructing Potholes Dam, Columbia Basin Proj. Spec. 1400; adv. ENR 7/18.

Bids Asked July 29

†**Idaho**—Bureau Reclamation, Dpt. Interior, 214 Bway., Boise, preparation of concrete aggregates, Star Lane Deposit, Payette Div., Spec. 1405. W. R. Young, ch. engr.

Bids Asked July 31

†**Tenn., Bessie**—U. S. Eng., P.O. Box 97, Memphis, Zone 1, placing approx. 370,000 cu. yd. earthwork in Madrid Bend Levee Dist., Inv. Ser. No. 40-041-47-2.

Bids Asked August 1

†**Michigan**—U. S. Eng., 800 Guardian Bldg., Detroit, Zone 31, dismantling, removing movable dam and concrete pedestals on Bridge Island, St. Mary Falls Canal, Sault Ste. Marie, Inv. 20-064047-1.

†**Va., Petersburg**—U. S. Eng., Fort Norfolk, repairing Pocahontas Levee, Chesterfield Co., Inv. No. 44-110-47-1, Ser. No. 442.

Bids Asked August 7

†**New Jersey**—U. S. Eng., 120 Wall St., New York, 5, N. Y., clearing, snagging, Pequannock Twp. Ditch, Lincoln Park and Pequannock Twp., Morris Co.

Bids Asked August 8

Ark., Blytheville—Drainage Dist. 16, Lynch Bldg., redredge Ditch 25, Drainage Dist. 16 of Chickasawba Dist. Mississippi Co. Shane & Fendler, Lynch Bldg., engrs.

†**Mississippi**—U. S. Eng., U. S. Post Office and Courthouse Bldg., Vicksburg, portion Enid Dam Embankment, spillway and appurtenant work on Yocona River, Yalobusha Co., Serial 22-052-47-3.

Bids Asked August 22

†**North Dakota**—Bureau Reclamation, Dpt. Interior, Bismarck, constructing Heart Butte Dam, Heart River Unit, about 18 mi. south of Glen Ullin, Spec. 1409. CD 7/30/45—ENR 8/9/45.

Bids Asked August 26

†**Louisiana**—U. S. Eng., P.O. Box 1169, Mobile, Ala., constructing Locks 1, 2 and 3, near Pearl River between Bogalusa and Pearl River, Inv. No. 01-076-47-1. Plans deposit $75.

LOW BIDDERS

Ark., Osceola — Grassy Lake & Tyronza Drainage Dist. 9, July 1, drainage work, from Missco Constr. Co., Blytheville. **$43,115.** CD 6/19—ENR 6/27.

†**California**—U. S. Eng., 1209 Eighth St., Sacramento, Zone 8, July 2, levee construction, west levee Yolo Bypass from causeway 3 mi. south, Spec. 1229, from A. Teichert & Son, Inc., Box 1133, Sacramento. **$152,668.** CD 6/12 —ENR 6/20.

†**Calif., Oakland**—U. S. Eng., 74 New Montgomery St., San Francisco, July 9, dredging, berthing areas, Naval Supply Depot, Serial 04-203-46-58, from Olympian Dredging Co., 625 Market St., San Francisco. **$140,125.** CD 6/25 —ENR 7/4.

†**Louisiana**—U. S. Eng., foot of Prytania St., New Orleans, Zone 2, July 1, approx. 660,000 cu. yd. compacted earthwork in Ascension and St. James Parishes, Inv. 16-047-46-319 and 320, from W. P. Villere, 1100 S. Claiborne Ave., New Orleans. **$253,308.** CD 6/21.

La., Tallulah—Police Jury Madison Parish, July 3, imprv. Mothiglam Bayou, from Mornsby & Millen, Bossier City. **$74,220.** CD 6/24—ENR 6/27.

Mass., East Boston—Comm. of Mass., 100 Nashua St., Boston, filling at Hangar Areas, Logan Airport, from B. Perini & Sons, Inc., 73 Montwait Ave., Framingham, **$372,850.** Est. $545,500. CD 6/24—ENR 6/27.

†**Missouri**—U. S. Eng., 601 Davison Bldg., Kansas City, 8, Mo., pile dikes and revetments, Missouri River at Searcys to Amazon Roads, from Patton-Tulley Trans. Co., 1242 N. 2 St., Memphis, Tenn. **$294,595.** CD 6/28.

†**Montana**—U. S. Eng., Fort Peck, June 21, grading berm area and constructing relief wells collector sys. at downstream toe of Fort Peck Dam, Spec. 24-016-46-27, from Northwestern Eng. Co., Rapid City, S. D. **$159,212.** CD 6/10—ENR 6/13.

†**Nebraska and Iowa**—U. S. Eng., 1709 Jackson St., Omaha, 2, Neb., July 1, 5,780 lin. ft. standard dikes and revetment on Missouri River, Kenselers-Big Sioux Bends, about 8 mi. above Sioux City, Ia., Serial 25-066-46-399, from McGeorge Contg. Co., foot Nebraska St., Pine Bluff, Ark. **$284,728.** CD 6/12—ENR 6/20.

†**Nebraska**—Bureau Reclamation, McCook, cancelled bids to have been opened Aug. 14, constructing Enders Dam and dike on Frenchman Creek. CD 7/3—ENR 7/11.

†**N. Y., Port Dickenson**—U. S. Eng., Chimes Bldg., Syracuse, Zone 2, received no bids June 24, flood control proj. Project indefinitely in abeyance. CD 5/24—ENR 5/30.

†**Oklahoma** — Bureau Reclamation, Altus, June 28, earthwork and structures, Station 610 plus 00 to Station 1147 plus 37, Altus Canal, Altus Proj., Spec. 1374, from Stamey Constr. Co., Hutchinson, Kan., **$337,147.** Est. $700,000. CD 6/11—ENR 6/13.

†**Utah**—Bureau Reclamation, Provo, June 24, earthwork, pipelines, tunnel and structures, Jordan Narrows Siphons, Provo Reservoir Canal, Spec. 130, from C. V. Warren, Pleasant Grove, Sched. 1, **$162,499;** Sched. 2, **$241,932.** CD 6/11—ENR 6/13.

★†**Washington**—Bureau Reclamation, Customhouse, Denver, 2, Colo., June 28, 12 pump discharge pipes at Grand Coulee, Spec. 1338, from Western Pipe & Steel Corp., San Francisco, Calif., **$1,208,000.** CD 6/12—ENR 6/20.

†**Wis., Racine**—U. S. Eng., 428 Federal Bldg., Milwaukee, June 28, dredging at Racine Harbor, from Fitz Simons & Connell Dredge & Dock Co., 10 S. LaSalle St., Chicago, Ill. **$92,440.** CD 6/5—ENR 6/13.

CONTRACTS AWARDED

★†**California**—Bureau Reclamation, Denver, Colo., fourteen 96 in. **outlet gates with** hoists, indicators, 2 sets erection equip., etc., installing in river outlets at Shasta Dam, Kennett Div., Central Valley Proj., Spec. 1253, to Joshua Hendie Iron Works, 422 Market St., San Francisco. **$512,500.** CD 5/7—ENR 5/9, under LB.

†**Idaho**—Bureau Reclamation, Customhouse, Denver, Colo., five 72 in. regulating gates for outlet works at Anderson Ranch Dam on Boise Proj., to Goslin-Birmingham Mfg. Co., 3700 10 Ave. N., Birmingham, Ala. **$120,041.** CD 5/8—ENR 5/16.

★†**Illinois**—U. S. Eng., P.O. Box 59, Louisville, 1, Ky., flood protection works, Mounds and Mound City, to R. B. Potashnick, Cape Girardeau, Mo. **$664,30.,** Bids 4/25. CD 4/30—ENR 5/2, under LB.

†**Ia., Council Bluffs**—U. S. Eng., 1709 Jackson St., Omaha, 2, Neb., levee and appurtenances, Unit 1, Serial 25-066-46-354, to Kramme & Jensen Constr. Co., 1901 Easton

EARTHWORK, etc. (Contracts Awarded, Cont'd.)

Blvd., **Des Moines, Zone 16. $396,932.** Bids 6/12. CD 5/23—ENR 5/30.

★**†Pennsylvania**—U. S. Eng., 925 New Federal Bldg., Pittsburgh, spillway imprvs., Youghiogheny Dam, Youghiogheny River, Inv No. 36-058-46-115, to H. Holmes Crystal Falls, Mich. Est. **$910,381.** CD 6/12—ENR 6/20, under LB.

†Tex., Orange—Yards & Docks Annex, Navy Dpt., Arlington, Va., camels for berthing of Naval Warships, Spec. 10088, to Spence & Howe, Port Arthur. **$124,000.**

N. S., Shag Harbour and The Hawk—Dpt. P. Wks., Ottawa, Ont., dredging in harbour, to Merrill Rawding, Main St., Liverpool. **$24,500.**

Ont., Trenton and Kingston—Dpt. P. Wks., Ottawa, dredging Trenton and Kingston harbors, to Russell Constr. Co., Ltd., 501 Harbour Comn. Bldg., Toronto. **$38,600.**

Ont., Wallaceburg—Dpt. P. Wks., Ottawa, dredging 20 ft Sydenham River, front of H. J. Heinz Co factories, to Canadian Dredge & Dock Co., Chatham. Est. **$40,000.** A. A. Anderson, Dpt. P. Wks., London, engr.

PUBLIC BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 25

Md., Baltimore—City, c/o Bd. Awards, City Hall, 1 and 2 story, 75x170 ft., concrete, steel, brick first unit of Chick Webb Memorial Center, consisting assembly and game rooms. Plans deposit $50. F. A. Fletcher, 7 E. Franklin St., archt. CD 2/7/45—ENR 2/22/45.

Bids Asked July 26

†Nev., Carson City—Bureau Reclamation, Dpt. Interior, Denver, Colo., furnishing, del. by trucks at building site, at Carson City Government Camp or del. by rail f.o.b. cars, at shipping point or f.o.b. cars Carson City, six 2 bedroom, type 2 prefabricated or precut residences for Carson City Goverment Camp, Spec. 1427.

Bids Asked July 30

N. C., Thomasville—At office Dr. C. H. Phillips, chn. Bldg. Com. City Memorial Hospital, Thomasville, altering present 4 story hospital, and 5 story, 43x120 ft. addn. Plans deposit $25. Extended date. J. Burton Wilder, 821 Jefferson Bldg., Greensboro, archt. Wm. M. Wallace II, 126 E. Parrish St., Durham, engr. CD 6/13.

O., Cuyahoga Falls—Bd. Educ., Cuyahoga Falls School Dist., Cuyahoga Falls, constructing Edward Rowland Sill school, Tallmadge Rd. and Searl St. Plans deposit $35. N. M. Konarski, Arkson, archt. CD 10/18—ENR 11/15.

Bids Asked August 5

Mich., Jackson—Bd. Educ., Bldg. & Grounds Comm., City Hall, 2 brick, steel, rein.-con. school, $300,000.

Bids Asked August 13

†Washington—Bureau Reclamation, Custom House, Denver, furnishing, del. f.o.b. cars shipping point or at Almira, structural steel for glass block windows for machine shop at Grand Coulee Dam, Columbia Basin Proj., Spec. 1430.

Bids Asked August 14

†Mich., Sault Ste. Marie—U. S. Eng., 800 Guardian Bldg., Detroit, 31, hydroelectric power plant and appurtenant works at St. Marys Falls on St. Marys River, Inv. No. 20-064-46-18. CD 6/27—ENR 7/4.

Bids Asked About August 16

Tex., Nacogdoches—Stephen F. Austin State Teachers College, 3 story, 90x116 ft. men's dormitory, brick, rein.-con. $336,000. S. Simons, 118 E. 4 St., Tyler, archt. CD 10/10/45—ENR 11/15/45.

†Wyoming—Bureau Reclamation, Customhouse, Denver, Colo., three 13,333 kva., 6,800 delta to 66,400/115,000 Y-volt, 3-phase, 60-cycle, oil-immersed, self-cooled, outdoor-type power transformers, for Kortes Power plant, Kortes Unit, Wyoming, Missouri Basin Proj., Spec. 1431.

Bids Asked August 19

Minn., Alexandria—City, H. S. Campbell, clk., City Hall, power plant imprvs., furnishing, installing steam generating unit, $100,000. Plans deposit $35. Pfeifer & Shultz, 702 Wesley Temple Bldg., Minneapolis, engrs. CD 3/14/45—ENR 4/5/45.

N. C., Canton—Canton Administrative School Unit, A. J. Hutchins, supt., Canton, school and mechanical installation, incl. 7 classrooms, cafeteria, office, rest room, library, auditorium, Homes Economics Dpt., shops. Plans deposit $25. L. M. Gudger, 52 Carter St., Ashville, archt.

Bids Asked August 28

†Oregon—Bureau Reclamation, Klamath Falls, constructing Adams Pump. plant, Main Div., Klamath Proj., Oregon-California, near Merrill, Spec. 1423.

LOW BIDDERS

Ala., Evergreen—City, J. H. Robinson, mayor, received no bids July 2, gas plant and distr. sys. CD 6/13—ENR 6/20.

†Calif., Stockton—Yards & Docks Annex, Navy Dpt., Arlington, Va., rejected bids June 21, 2 married officers quarters with services. L.B. $41,763. CD 6/11—ENR 6/18.

Ind., Crawfordsville—Bd. P. Wks., C. D. Jones, secy., City Hall, 1 story, brick, rein. con., structural steel municipal power plant addn., from L. Balkin Bldrs., 123 W. Madison St., Chicago, Ill. $197,200. Commercial Testing & Engrg. Co., 307 N. Michigan Ave., Chicago, Ill., engrs. CD 6/13—ENR 6/20.

Ia., Iowa City—State University of Iowa, State Bd. Educ., Des Moines, June 21, power plant imprvs., electric generator, bldg. imprvs., from Stearns Rogers Co., 1720 California Ave., Denver, Colo. $298,222. CD 6/13.

Mass., Palmer — Commonwealth of Mass., Dpt. Mental Health, 100 Nashua St., Boston, rejected bids brick, steel childrens unit Monson State Hospital, P-24. Will readvertise. CD 3/27—ENR 4/4.

Mich., Midland—Bd. Educ., Midland, June 12, general contract brick, stone, steel, concrete school, from F. C. Trier Constr. Co., Saginaw. $299,564. CD 5/22—ENR 6/30.

★**N. Y., Brooklyn — Supt. School Bldgs.,** Design & Construction, 49 Flatbush Ave. exten., Zone 1, July 8, general contract for new addns. to P. S. 35 (Decatur Junior High School), from J. T. Brady & Co., 606 W. 47 St., New York, $1,178,840. CD 6/19—ENR 6/27.

★**O., Painesville**—Painesville Rural School Dist. S. T. Collister, Lake County Courthouse, rejected bids June 28, 2 story, 200x250 ft., brick high school. $750,000. CD 6/5—ENR 6/13.

★**Tex., Dallas**—City, June 26, first 14 units of 35 unit, concrete, steel municipal market house, from J. J. Fritch, 700 Harry Hines Blvd., base bid $937,764.

Tex., Woodville—Ind. School Dist. c/o J. E. Wheat, received no bids June 10, high school. $225,000. Steinman & Goleman, 230 Liberty Bldg., Beaumont, engr. CD 6/5.

†Wis., Milwaukee—U. S. Eng., 428 Federal Bldg., Zone 1, June 27, 3 story, 38x160 ft. hospital and connecting corridor at U. S. Disciplinary Barracks, from Siesel Constr. Co., 514 E. Ogden Ave., Zone 2, $422,205. A. Hopkins & Assoc., 415 Lexington Ave., New York, 17, N. Y., engrs.-archts. CD 6/19.

CONTRACTS AWARDED

†Calif., Monterey—U. S. Eng., 74 New Montgomery St., San Francisco, military intelligence language school at Presidio of Monterey, to Fred J. Early Jr. Co., 369 Pine St., San Francisco. $225,000.

†Calif., Pasadena—U. S. Eng., 751 S. Figueroa St., Los Angeles, test bldgs. and facilities at Galcit Laboratory, Arroyo Seco Site, Calif. Institute of Technology, Serial 46-160, to J. W. Johnson, 5205 Hollywood Blvd., Los Angeles, $44,498.

★**†Calif., San Francisco—U. S. Eng., 74 New** Montgomery St., Zone 19, converting bldgs. to family type, at Harbor Defense, Presidio of San Francisco, Letterman General Hospital, San Francisco and Oakland Army Base, Oakland, to M. & K. Corp., 200 Financial Center Bldg., $649,307. CD 5/10/45—ENR 5/16/45.

Conn., Storrs — University of Connecticut, State Comptroller, 114 State Capitol, Hartford, greenhouses and headhouse, to Lord & Burnham Co., Irvington, N. Y. $102,536. CD 6/14/43—ENR 6/17/43.

★**†Fla., Green Cove Springs**—Yards & Docks Annex, Navy Dpt., Arlington, Va., 260 family housing units, Navy's Idle Storage Fleet Base, to George D. Auchter Co., foot of Adams St., Zone 1. Approx. $2,000,000. Bids 6/27, awarded 7/2. CD 6/13—ENR 6/20.

★**†Ill., Chicago**—U. S. Eng., 223 N. Bank Dr., remodeling 5th Army headquarters and barracks, Gardiner Hospital, to Coath & Goss, 5103 W. Lake St. Est. $500,000. Burnham & Hammond, 160 N. LaSalle St., archts.

†Md., Annapolis—Yards & Docks Annex, Navy Dpt., Arlington, Va., quarters for married naval officers Spec. 17931; 4-family apt. Spec. 17665; repairing Post Graduate School Spec. 17896; repairing radio station, Spec. 17719, at U. S. Naval Academy, to Irwin & Leighton, 1505 Race St., Phila., Pa. CD 6/27—ENR 7/4.

★**†Md., Solomons**—Yards & Docks Annex, Navy Dpt., Arlington, Va., quarters for civilian personnel, to Byrne Organization, 1673 Connecticut Ave., Wash., D. C., over $2,000,000.

Mass., Wellesley—Town, Bd. Selectmen, 1 story, 75x230 ft. and 90x285 ft. service bldg. Municipal Hy., Sewer and Water Dpts. equip. and shops, to D. Cunningham Constr. Co., Inc., 20 Kilby St., Boston, $242,670. CD 6/19—ENR 6/27, under LB.

★**†Mich., Detroit**—U. S. Eng., Union Guardian Bldg., 500 Griswold St., 6 concrete, brick, steel laboratory bldgs., at Detroit Arsenal, to Darin & Armstrong, 2041 Fenkell Ave., $1,436,316. Smith, Hinchman & Grylls, 800 Marquette Bldg., engrs.-archts. CD 3/11—ENR 6/13.

†N. J., Fort Monmouth and Camp Brooks—U. S. Eng., 120 Wall St., New York, 5, N. Y., conversion bldgs. to apartment units at Fort Monmouth and Camp Brooks, to A. A. LaFountain, Inc., 159 Beach St., Hackensack, $296,568. CD 6/6.

★**†New Mexico**—U. S. Eng., Albuquerque, 200 permanent type family dwellings, Los Alamos area, southwest of Albuquerque, to R. E. McKee, 1918 Texas St., El Paso, Tex., $1,389,816.

★**†N. Y., Malta**—U. S. Eng., 120 Wall St New York, Zone 5, miscellaneous structures, incl. office bldg., 2 storage bldg., observation stations, water supply and sewerage sys., etc., to James J. Waters Corp., 415 Lexington Ave., New York, Zone 17, $853,000. CD 6/24—ENR 6/27, under LB.

★**†N. Y., West Point**—U. S. Eng., 120 Wall St., New York, Zone 5, cadet gymnasium addns. at U. S. Military Academy, to Grove, Shepherd, Wilson & Kruge, Inc., 247 Park Ave., New York, Zone 17, $1,336,875. CD 6/26—ENR 7/4, under LB.

★**†N. C., Camp Lejeune (br. New Bern)**—Yards & Docks Annex, Navy Dpt., Arlington, Va., 100 addnl. officers quarters, to H. L. Coble Constr. Co., Box 2040, Greensboro, $1,020,000. CD 7/3—ENR 7/11, under LB.

★**N. C., Fort Bragg**—U. S. Eng., Post Office Bldg., Savannah, Ga., converting bldgs. into family units, Ser. BRAG-11-46, Group 5, to R. F. Kirkpatrick & Sons, Burlington, $530,000***Group 3, to Builders Home Specialty Co., Wilmington, $344,255***Group 2, to W. A. Foster, Burlington, $158,362. Grand total $1,030,617. CD 6/18.

O., Shelby—City, City Hall, brick boiler house to Friebel & Hartman, Shelby, $91,247. Bids 6/27, awarded 7/2. CD 6/10—ENR 6/13.

★**Ore., Astoria**—Yards & Docks Annex, Navy Dpt., Arlington, Va., 375 unit housing project at Tongue Point, to Lease & Liegland, Vance Bldg., Seattle, Wash. Zone 1. Est. $4,000,000. CD 6/20—ENR 7/11.

★**†Tenn., Camp Campbell**—U. S. Eng., P. O. Box 59, Louisville, 1, Ky., converting 118 bldgs., into officers' apartments, Inv. No. W-15-129-46-85, to Gardner Constr. Co., 716 Eighth Ave. S., Nashville, $1,385,000. Bids 6/10. CD 5/23—ENR 5/30.

Tex., Angleton—Harlan State Prison, Angleton, brick mfg. plant, force account. $60,000.

Tex., Big Spring—Knott Ind. School Dist., Big Spring, 110x150 ft. brick, hollow tile, concrete school, to J. D. Jones, Big Spring. Approx. $218,000. Butler-Brasher Co., 406 Ave. M, Lubbock, archts.

★**†Tex., Camp Hood**—U. S. Eng., Fort Sam Houston, June 20, remodeling Army Camp bldgs. into 450 housing units for enlisted men and their families, to P.O.'B. Montgomery, 913 S. Akard St., Dallas, $1,667,779. CD 6/26—ENR 7/4 under LB.

★**†Va., Dahlgren**—Yards & Docks Annex, Navy Dpt., Arlington, Va., ammunition preparation facilities, incl. bldgs., magazines, roads, walks, etc., Naval Proving Grounds, Spec. 16187, NOY 11920, to Jeffress-Dyer, Inc., 1741 K St. N.W., Wash., 25, D. C. $642,179. (Correction—contractor). Bids 6/5, awarded 6/29. CD 6/26—ENR 7/4, under CA.

★**†Va., Quantico**—Yards & Docks Annex, Navy Dpt., Arlington, constructing Marine Air Infantry School, Marine Barracks, Spec 17594, to Jeffress Dyer Co., 1741 K St. N.W., Wash., D. C. $830,557. CD 7/3—ENR 7/11, under LB.

Wash., Pullman — Washington State College, Pullman, farm machinery bldg., to Clyde M. Ludberg Co., W. 326 First St., Spokane. $137,830. CD 6/8/45—ENR 6/14/45.

★**†Wash., Tacoma**—Yards & Docks Annex, Navy Dpt., Arlington, Va., housing at Naval House, housing men manning inactive fleet berthing facilities, to Lease & Leigland, Vance Bldg., Seattle, Zone 1. Est. $1,000,000.

B. C., Kimberley—Wartime Housing, Ltd., 135 E. 2 St., North Vancouver, one hundred twenty-five, 4 room frame dwellings, to Smith Bros. & Wilson, Ltd., 1267 Richards St., Vancouver, $490,000. McCarter & Nairne, Marine Bldg., Vancouver, archts.

B. C., Nelson—Wartime Housing Ltd., 135 E. 2 St., North Vancouver, fifty 4 room frame dwellings, to Housing Projects, Ltd., Nelson, $210,000. McCarter & Nairne, Marine Bldg., Vancouver, archts.

★**B. C., Roseland**—Wartime Housing, Ltd., 135 E. 2 St., North Vancouver, one hundred twenty-five 4 room, frame dwellings, to Kootenay Constr. Co., Ltd., Roseland. $500,000. McCarter & Nairne, Marine Bldg., Vancouver, archts.

Ont., Forest Hill—S. S. 14, North York, W. J. Emerson, secy., school, Dalemont Ave., North York, to Bennett-Pratt, Ltd., 30 Bloor St. W., Toronto, approx. $240,000. CD 12/24—ENR 3/7.

COMMERCIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 30

La., New Orleans—Warner Bros. Pictures, 150 S. Liberty St., 2 story, rein.-con. steel, brick, limestone and granite, film exchange bldg. Cleveland and S. Liberty Sts. Extended date. Dreyfous & Seiferth, Audubon Bldg., archts. CD 7/10—ENR 1/31.

COMMERCIAL BLDS. (Bids Asked Cont'd.)

Bids Asked August 1

Tex., Corpus Christi—Lone Star Theatres, Inc., c/o C. A. Richter, 100 x 150 ft. and 58 ft., steel, rein.-con. hollow tile, brick, 2,300 seating capacity threatre, $215,000. Plans deposit $10. Morris Levy, 522-23 Med. Prof. Bldg., archt. W. E. Simpson Co., Milam Bldg., San Antonio, engr. CD 5/3—ENR 4/4.

Bids Asked

Mass., Marlboro—Anna Maria College, Sisters of St. Annes, college incl. administration, dormitory facilities. $250,000. Extended date. O.E.E. Nault & Sons, 48 Hamilton St., Worcester, archts. CD 7/3—ENR 7/11.

SOON LETS CONTRACT

Tex., Dallas—S. H. Kress Co., 1300 Elm St., soon lets contract, commercial store bldg. $225,000. CD 6/28—ENR 7/11.

Ont., Kingston—Dr. W. McNeill, vice-principal Queen's University, soon lets contract, 1 story, 40x100 ft., stone, rein.-con., steel, McLaughlin Hall (Engineering Bldg.). $210,000. Drever & Smith, 81 Brock St., archt. CD 4/12/44—ENR 4/20/44.

LOW BIDDERS

Tex., Houston—Second Presbyterian Church, 3714 Main St., rejected bids Apr. 11, church H. Lloyd, 4605 Montrose Blvd., archt. CD 4/3—ENR 4/11.

CONTRACTS AWARDED

Calif., Daly City—Scott-Moser, 1730 29 Ave., San Francisco, 23 residences, Hillcrest Tract, own forces. $210,000.

Calif., La Jolla—W. P. Kreating, 5711 La Jolla Blvd., San Diego, 50 frame, stucco dwellings, own forces. Approx. $350,000.

★**Calif., Oakland**—Pacific Telephone & Telegraph Co., 140 New Montgomery St., San Francisco, replacing office bldg. with 13 story, steel frame, telephone bldg. to Dinwiddie Constr. Co., 210 Crocker Bldg., San Francisco. Est. $2,500,000. CD 6/6—ENR 6/27.

Conn., Darien—Guildway Homes, Inc., 471 Glenbrook Rd., Stamford, 40 frame, 5 room single houses, West Ave. and Patton Dr. own forces. $240,000.

Ind., Logansport—Otto Hilbert, Logansport, 10 homes, 282 acre tract north of city, own forces. $450,000.

★**Ind., Richmond**—Richmond Homes, Inc., Richmond, 150 addnl. homes, west part of city, own forces. $900,000.

★**Kan., Kansas City**—C. Vawter, 5236 Roe St., 300 residences, own forces. $1,500,000.

★**Md., Baltimore**—H. E. Gilbert, 2 E. Lexington St., two hundred eighty 1 and 2 story, irregular sized frame, detached residences, separate contracts. $1,680,000.

★**Md., Baltimore**—Woodhaven Constr. Co., 831 Munsey Bldg., seventy-five 2 family, 2 story bsmnt., 20x38 ft., brick, cinder block residences, separate contracts. $525,000. C. H. Hebrank, 20 E. Lexington St., archt.

Mass., Andover—Alderbrook Estates, Inc., 45 single homes, frame, on Alderbrook Estates. Owner builds. $300,000. W. N. Jacobs, 460 Park Square Bldg., Boston, archt.

Mo., Clayton (St. Louis, 5, P. O.)—S. Brown, 7542 Oxford Dr., 3 story, bsmnt., 81x166 ft., brick, concrete, stone apartment, 765 Westwood Ave., and 3 story, bsmnt., 74x94 ft. apartment 6252 Southwood Ave. Owner builds. Over $250,000. R. Gonzelman, 5734 Chippewa St., St. Louis, Zone 9, archt.

Mo., Springfield—Country Club Village, Inc., 1519 Cherry St., fifty 5 or 6 room dwellings, 14 duplex and 3 apartment houses, in Country Club Village, on 96 acre tract fronting on 1400 block of Glenstone St. and east thereof, to H. E. Sperry, 918 Catalpa St., Est. over $250,000. Johnson & Robinett, Landers Bldg., archt.

★**Neb., Omaha**—United Benefit Life Ins. Co., M. Schaffer, secy., 23 and Farnam Sts., 10 story, concrete, steel office, to Peter Kiewit Sons Co., 1024 Omaha Natl. Bank Bldg., approx. $2,000,000. Tinsley, Higgins & Lighter, 526 Liberty Bldg., Des Moines, Ia., archts.

★**O., Columbus**—Linden Development Corp., J. F. Shuman, pres., 74 E. Gay St., one hundred sixty 1 family, 1 story, frame dwellings, Grasmere Ave., Howey Rd. and Atwood Terrace. Owner builds. $1,000,000.

O., Rocky River — Co-operative Housing Corp., C. L. Livingston, 1239 Guardian Bldg., Cleveland, eleven 3 story, 28x67 ft., masonry apartments Westwood Ave. Owner builds. $330,000. J. G. Kish, Carnegie Hall, Cleveland, archt.

★**Ore., Beaverton** — Kaiser Community Homes, Inc. of Oregon, Swan Island, Portland, 1,000 two and three bedroom homes and community facilities on 400 acre site near Bertha-Beaverton Highway, own forces. $10,000,000.

★**Tex., Dallas**—American Home Realty Co., A. G. Wynne Jr., pres., Strait Lane, 425 residences, Wynnewood, to A. Farnell Blair, Dallas, $2,500,000. CD 2/27—ENR 4/4.

Tex., Dallas—Mayfair Department Stores, Inc., Elm and Akard Sts., 7 story, steel, masonry, brick, hollow tile department store, air-conditioning, etc., to J. E. Morgan & Sons, 525 S. Lamar St. approx. $485,000.

★**Tex., Dallas**—Western Hills Realty Co., 1400 Cockrell Hill, residential constr. Oak Cliff area. Owner builds. $1,600,000. CD 4/4—ENR 4/18.

★**Tex., Houston**—C. N. Brinkley & Assoc., Galena Park, 75 dwellings. Owner builds. $575,000. CD 1/31—ENR 2/14.

Tex., Houston—King & Sheets Co., Shell Bldg., addnl. 32 sheet rock, concrete slab residences. Owner builds. $320,000.

Tex., Houston—L. Lewis & F. Coker, 260 W. 19 St., 2 story, 125 x 140 ft., aluminum trim super market, concrete pier fdn., to A. B. Anderson, Cecil St., approx. $210,000. Woestemeyer & Gaffney, 3908 Main St., archt.

★**Tex., Houston**—F. W. Sharp & Associates, 6901 Lyons St., 4,780 residences, Oak Forest Addn., to Frank W. Sharp Constr. Co., 6901 Lyons St., approx. $23,900,000. CD 5/31.

Tex., Houston—South Texas Realty Co., 3200 Fannin St., residences. Owner builds. $475,000.

★**Wash., Seattle** — Wash. Securities Co., Securities Bldg., Zone 1, 8 story, 60x130 ft., steel frame office bldg. addn., to Henrik Valle Co., 407 3 Ave. W. Est. $750,000. Bids 6/8. CD 6/19—ENR 6/27.

B. C., Vancouver—Famous Players Canadian Corp., Ltd., 736 Granville St., theatre and stores, to Dominion Constr. Co., Ltd., 509 Richards Ave., approx. $250,000. Kaplan & Sprachman, 305 Dundas St. W., Toronto, Ont., archts. CD 11/30/44—ENR 12/14/44.

Ont., Guelph — Housing Enterprises (Guelph), Ltd., 21 Main St. E., Hamilton, 57 single, 2 semi-detached dwellings, George Heights subdivision, to Tom Contracting Co., Ltd., 10 Lake Crescent, Mimico, approx. $325,000. CD 6/12.

Ont., Owen Sound—Housing Enterprises (Owen Sound), Ltd., 21 Main St. E., Hamilton, 55 single, 4 semi-detached dwellings, to Carter Constr. Co., Ltd., 419 Cherry St., Toronto, approx. $310,000. CD 6/12.

★**Ont., Toronto**—University of Toronto, Dr. S. Smith, pres., chemistry bldg., College St., to A. W. Robertson, Ltd., 57 Bloor St. W., approx. $3,000,000. Col. A. D. LePau, c/o owner, engr.

P.E.I., Charlottetown—F. G. Spencer & Co., Ltd., Strand Theatre Bldg., Saint John, N. B., theatre, to J. N. Kenney, Main St., Yarmouth, N. S., approx. $225,000. Kaplan & Sprachman, 305 Dundas St. W., Toronto, Ont., archts. CD 1/2/45—ENR 1/11/45.

Que., St. Jean D'Iberville—Rev. Sisters of Providence, 1431 Fullum St., Montreal, convent, to Concrete Constr. Co., Ltd., 1082 Decarie Blvd., Montreal, approx. $200,000. CD 2/15—ENR 2/28.

INDUSTRIAL BUILDINGS

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked

Mass., Leominster—PLANT—Harris Ice Co., 609 Main St., 1 story, 55x130 ft., brick, tile quick freeze plant, 500 lockers and facilities for wholesalers. $60,000. H. E. Mason, 15 Prospect St., archt. CD 6/10.

Pa., Wilkinsburg—DAIRY—B. L. Cream Co., College Ave., 1 story, 47x60 ft., brick, glazed tile, steel beam dairy. $55,000. Braziel & Smart, Magee Bldg., 334 4 Ave., Pittsburgh, archts.

★**Tex., Dallas**—WAREHOUSES—Alford Terminal Warehouses, Merchants Cold Storage Bldg., 2 storage warehouses, 1 $1,000,000, other $1,200,000. CD 7/8—ENR 7/11.

★**Tex., Fort Worth**—FACTORY—Iowa Soap Co., Burlington, soap mfg. factory. $1,000,000.

Ont., Sarnia—PLANT—Polymer Corp., Ltd., No. 4 Hy., plant extens. $100,000.

SOON LETS CONTRACT

Ark., Hope—PLANT—Hope Industrial Corp., Hope, soon lets contract, plant to be leased to factory. A. N. McAninich, 512 Exchange Bldg., Little Rock, archt.

Ill., Chicago—FACTORY—Sampson Electric Co., 3201 S. Michigan Ave., soon lets contract 1 story, brick, concrete, steel factory. A. Epstein, 2001 W. Pershing Rd., engr. CD 10/17—ENR 10/25.

Ia., Dubuque—FACTORY—McDonald Mfg. Co., 12 and Pine Sts., soon lets contract factory. $125,000. E. O. Sessions & Co., 1 N. LaSalle St., Chicago, Ill., engrs.

Mass., Norwood—PLANT—Bird & Sons, Washington St., East Walpole, soon lets contract, 1 story, brick, steel plant, and altering 3 bldgs. $90,000. Ganteaume & McMullen, 99 Chauncey St., Boston, archts.

N. H., Nashua—PLANT—Coronis Cleaners, Eldridge St., soon lets contract, 2 story, 65x150 ft., brick, rein.con. dry cleaning facilities plant. Over $55,000. S. P. Tracy, 6 Davis St., archt. CD 7/1—ENR 7/11.

N. Y., North Beach—TERMINAL, etc.—Pan-American Airways, Inc., 60 E. 42 St., New York, Zone 17, soon lets contract, terminal bldg. and quarantine offices.

Tex., Houston—GARAGE, etc.—Glenn H. McCarthy, 2101 Bellaire Blvd., soon lets contract 4 story, bsmnt., 160x316 ft. steel, rein.-con. garage and service bldg. $245,000. Hedrick & Lindsley, 5201 Fannin St., archts. CD 6/10—ENR 6/27.

Wash., Seattle—LAUNDRY—Empire Laundry & Dry Cleaning Co., Western Ave. and Bell St., Zone 1, soon lets contract 1 story, 120x193 ft., rein.-con. laundry. $460,000. H. Bittman, Securities Bldg., Zone 1, archt. CD 6/25.

N. B., Chatham—POWER PLANT—N. B. Electric Power Comn., 55 Canterbury St., Saint John, soon lets contract steam power plant Over $70,000. CD 1/10—ENR 1/17.

LOW BIDDERS

La., Lafayette—SALES AND SERVICE—Hub City Motors, Brown Fortier, mgr., May 1, masonry, structural steel, steel bar joists auto sales and service bldg., from Romero & Theall, Youngsville. $85,500. CD 4/25—ENR 5/3.

N. C., Apex—PLANT—Berol Pen Co., Apex, project postponed indefinitely, pen mfg. plant $100,000. CD 6/15—ENR 6/20.

Tex., Beaumont—FOOD LOCKER PLANT—Consolidated Frozen Food Lockers, Beaumont, received no bids, frozen food locker plant addn. $40,000. Project indefinitely postponed. CD 4/4—ENR 4/11.

Tex., Big Spring—AUTO SERVICE SHOP, etc.—Big Spring Motor Co., Big Spring, cancelled bids to have been opened about May 25, auto service shop, storage and display bldg. $80,000. CD 5/8—ENR 5/16.

Tex., San Antonio—FACTORY—Kelton Furniture Co., c/o Spillman & Spillman, archts. 10 & 11 Changler Bldg., July 1, 2 story furniture storage and mfg. plant, from V. & A. Falbo, P.O. Box 4291. $50,977. CD 6/27—ENR 7/4.

Va., Suffolk—REFINERY, etc.—Planters Nut & Chocolate Co., Suffolk, June 29, refinery, packing bldg., oil mill and boiler house, from Wise Contg. Co., 122 N. 8 St., Richmond $465,915. CD 6/4—ENR 6/6.

CONTRACTS AWARDED

Calif., Berkeley—FACTORY—Trailmobile, 7 and Gilman Sts., 1 story, steel factory, to Maxwell Read, 939 33 St., Oakland. Est. $140,000. R. H. Cooley, 939 33 St., Oakland, engr.

Calif., Burbank—FACTORY—Tyre Nursery Furniture Co., 253 S. Los Angeles St., Los Angeles, 1 story, 100x100 ft., wood frame factory, incl. ¼ mi. railroad spur, Burlos Ave. own forces. $55,000. R. L. Perin Co., 2880 W. Valley Blvd., Alhambra, engrs.

Calif., El Cerrito — FACTORY — Technical Porcelain & Chinaware Co., Manila and Kearney Sts., 180x212 ft., steel, rein.-con. factory, to Godfrey Petersen, 1336 Portland St., Albany. Est. $60,000. P. A. Swafford, 126 Carmel St., engr.

Calif., Emeryville—PLANT—South Berkeley Creamery, 875 58 St., Berkeley, 2 story, creamery, milk procssing plant, to Monson Bros., 475 6 St., San Francisco. Est. $200,000. G. H. Jennings, 1715 Buena St., Berkeley, engr. CD 6/11—ENR 6/13.

★**Calif., Lodi**—PLANT—Wine Growers Guild, 27 W. Elm St., 1 story, rein.-con. bottling plant, to Cahill Bros., 206 Sansome St., San Francisco. Est. $500,000.

Calif., Los Angeles—FACTORY, etc.—Hickman & Ritter, 2411 Charnwood Ave., rein.-con. factory and pipe storage bldg., 3170 E. 11 St., to Harvey & Rose, 211 W. Orange Grove Ave., Arcadia. Approx. $100,000. H. Roy Kelley, 3723-A Wilshire Blvd., archts.

Calif., Oakland — PLANT — American Can Co., 230 Park Ave., New York, N. Y., 1 story, rein.-con., brick, steel, plant addn., to Larsen & Larsen, 629 Bryant St., San Francisco. Est $100,000.

Calif., Oakland—FACTORY—Carnation Co., 14 and Poplar Sts., structural steel, concrete warehouse, remodeling factory, to Marvin E. Collins, 825 Galvin Drive, El Cerrito. Est. $150,000. H. M. O'Neil & Co., 610 16 St., engrs.

★**Calif., Pittsburg** — COLD REDUCTION AND TIN PLATE MILL, etc.—Columbia Steel Co., Russ Bldg., San Francisco, structural steel bldgs. in connection with cold reduction and tin plate mill, to American Bridge Co., 564 Market St., San Francisco, approx. $5,000,000, administration, industrial relation, hospital, sanitary bldg., to J. H. Pomeroy & Co., 333 Montgomery St., San Francisco, approx. $500,000. CD 10/2—ENR 10/11.

Calif., San Francisco—BREWERY—Regal Amber Brewing Co., 675 Treat Ave., 5 story, Class A brewery, to Monson Bros., 475 6 St. Est. $300,000. CD 3/14—ENR 4/4.

Conn., New Haven—WAREHOUSE—William Pankoff, c/o J. Weinstein, archt., 100 Lowin Ave., 1 story, brick, concrete warehouse. Chapel St., to J. J. Leonard & Co., 902 Chapel St. Est. $55,000.

Conn., New London — PLANT — Glacier Foods, Inc., Harry Long, pres., Alewife Parkway, 1 story, brick, cinder blocks, individual lockers, quick freezing sys. plant, to Mondelci & Benvenuti, 16 Elm St. Est. $55,000.

Conn., Norwalk—FACTORY—Hat Corp of America, G. Rickua, vice pres., brick, steel, concrete factory addn., Van Zandt St., to Hewlett Constr. Co., 600 Lindley St., Bridgeport. Est. $350,000. CD 6/6—ENR 6/27.

Ia., Charlton — WAREHOUSE — Charlton Wholesale Grocery Co., Charlton, warehouse, to P. E. Johnson & Sons Constr. Co., Charlton. Approx. $150,000. CD 5/17—ENR 5/23.

Ia., Davenport—FACTORY—Swan Eng. & Machine Co., H. D. Bloch, pres., 105 Brady St., Chicago, Ill., 1 story, 60x200 ft., brick.

INDUSTRIAL BLDGS. (Contracts Awarded, Cont'd.)

rein.-con. factory, with 1 story, 50x75 ft., office section, to Priester Constr. Co., Davenport Bank Bldg. Est. over $100,000 with equip. E. A. Titus, c/o owner, engr.

Kan., Kansas City—PLANT—Gustin-Bacon Mfg. Co., Fairfax Industrial Dist., Kansas City, Kan., general contract mfg. plant, to Collins Constr. Co., 912 Baltimore St. $375,000.

Kan., Wichita—WAREHOUSE—Rounds & Porter Lumber Co., 235 N. Waco St., warehouse, to A. E. Jensen, 1228 Forest St. Est. $200,000. G. Griffin, 416 S. Market St., archt.

La., Gretna—SALES and REPAIR—Leson Chevrolet Co., 335 Huey P. Long Ave., 1 story, masonry, steel auto sales and repair bldg., 5 St., to Oakes Co., Queen and Crescent Bldg. $75,646. Awarded 6/28. Diboll-Kessels, Baronne Bldg., New Orleans, archts.

Me., Caribou — WAREHOUSE — Briggs & Salmon, Samuel Tabenken, Caribou, 1 story heavy mill warehouse. $60,000. Owner builds. Eaton W. Tarbell & Associates, 84 Harlow St., Bangor, archts.

★**Mass., Florence**—FACTORY—Propper McCallum Hosiery Co., Inc., 200 Madison Ave., New York, N. Y., 1 story, 140x215 ft. brick, steel hosiery factory, to Gasper Ranger Co., 6 Newton St., Holyoke. Est. $900,000. Bids 1/25. CD 3/20—ENR 3/28.

Mo., Kansas City—PLANT—Handcraft Mfg. Co., 3715 E. 24 St. Ter., general contract mfg. plant, Burlington Ave. north of 23 Ave., North Kansas City, to Fogel Constr. Co., 810 Lathrop Bldg. J. F. Lauck, 6225 Brookside Blvd., archt.

Mo., St. Louis—SERVICE AND SALES—E. DePendoza, 3944 Clayton Ave., Zone 10, 1 story, 50x100 ft., concrete block, automobile service and sales bldg., rein.-con. fdn., 3950 Clayton Ave., to E. E. Marx, Continental Bldg., 3617 Olive St., Zone 8, Est. $55,000 with equip. Windship & Winkeler, Continental Bldg., 3617 Olive St., Zone 8, archts.

Mo., St. Louis—FACTORY—Lewis-Hower Co., 319 S. Fourth St., Zone 2, 4 story, 69x90 ft., brick, rein.-con. factory, 319 S. Fourth St., separate contracts under supervision Widmer Eng. Co., engrs., 122 N. Seventh St., St. Louis, Zone 1. $150,000.

O., Cleveland—PLANT—White Motor Co., 1459 E. 185 St., brick, steel, mezzanine plant addn., to Hunkin-Conkey Constr. Co., 1740 E. 12 St., $55,000. J. Gordon Turnbull, 2630 Chester Ave., engr.

O., Toledo—GARAGE, etc.—**Ohio Fuel Gas** Co., Huron St., 1 story, 130x260 ft., concrete, steel, brick, stone garage and storage bldg., 127 S. Erie St., to J. H. Berkebile & Sons, 998 Whittier St. Est. $150,000. Awarded 7/2. R. C. Reese, 300 Sandusky St., engr.

★**O., Toledo**—PLANT—National Supply Co., Bishop St., L. A. Ringman, plant mgr., 1 story, 57x125x390 ft., and 34 ft. high plant addn., 30x240 ft. addn., enlarging office, plant hospital and time offices, to A. Bentley & Sons Co., 201 Belmont St. Est. $1,000,000. CD 5/27—ENR 6/13.

Ore., Merrill—PLANT—Klamath Falls Potato Products, Inc., Merrill, remodeling 16x200 ft., frame starch mfg. plant, to Pinneger & Watkins, Klamath Falls. Est. $91,000.

Tex., Houston—WAREHOUSE—**Texas Solvents & Chemical Co.**, Market St. Rd., warehouse and pump house concrete pier fdns., to R. P. Farnsworth & Co., Inc., Box 74. Approx. $58,000. CD 6/4.

Tex., Orange—PUMPING STATION — Empire Pipe Line Co., Bartlesville, Okla., intermediate crude oil pump station (on Sour Lake, Lake Charles, La., main line) near here. Owner builds. $160,000. R. V. Johnson, c/o Engineering Dpt. of Cities Service Oil Co. (affiliate), Orange, engr.

Tex., San Antonio—PLANT—Alamo Frozen Foods, Military Hy. and M.P. Tracks, plant to freeze and package fruits, force account. $60,000. CD 6/2—ENR 7/11.

Tex., San Antonio—PLANT—Kelton Furniture Co., c/o contractor, furniture storage and mfg. plant, to V. & A. Falbo, P.O. Box 4291. $50,000.

Wash., Seattle—GARAGE—C. B. Ballard & Son, E. 43 St. and Roosevelt Way, Zone 5, 100x100 ft., masonry garage, to G. M. Nicholson Constr. Co., N. 85 St. and Greenwood Ave. Est. $60,000. Thomas, Grainger & Thomas, Arcade Bldg., 2 and Union Sts., Zone 1, archts. CD 1/7—ENR 1/10.

Wis., Manitowoc—COLD STORAGE—Northern Food Products Co., 826 S. 15 St., 1 story, 52x182 ft., brick cold storage bldg., concrete fdn., to Hamann Constr. Co., N. 8 and Reed Sts. CD 6/5—ENR 6/20.

Wis., Merrill—STORAGE—A. H. Weinbrenner Co., 226 E. Juneau Ave., Milwaukee, Zone 2, 1 story, 150x225 ft., steel, brick shoe storage bldg., concrete fdn., to Walter W. Oeflein, Inc., 5345 N. Hopkins St., Milwaukee, Zone 9.

Wis., Milwaukee — GARAGE — Humphrey Chevrolet Co., 3419 W. Wisconsin Ave., Zone 8, 1 story, 65x166 ft., steel, brick garage addn., to Peters Constr. Co., 2640 N. Humboldt Ave., Zone 12. F. J. Hinton, 1721 N. Water St., Zone 2, archt. CD 3/29.

Wis., Niagara—MACHINE SHOP—Kimberly-Clark Corp., 128 N. Commercial St., Neenah, 3 story, 90x450 ft., steel, brick machine shop, to Fluor Bros. Constr. Co., Oshkosh. Bids 6/19. CD 6/5—ENR 6/20.

Wis., Schofield—GARAGE—Reo Truck Sales Co., Schofield, 1 story, 60x144 ft., brick, concrete block, steel garage, day labor. G. Foster & K. Yasko, Wausaw, assoc. archts. CD 12/19/45—ENR 1/10/46.

Alta., Edmonton—WAREHOUSE—C. Woodward, Ltd., 101 St. and 102 Ave., warehouse, to Dominion Constr. Co., Ltd., 509 Richards Ave., Vancouver, B. C., approx. $150,000. J. C. Page, Vancouver, B. C., archt. CD 9/27/45—ENR 10/11/45.

B. C., Vancouver—PLANT—Bartram Industries, Ltd., 33 Woodland St., plant addn., to Commonwealth Constr. Co., Ltd., 700 Taylor St., approx. $76,200. CD 5/17—ENR 5/23.

N. S., Sydney—BUS TERMINAL—United Service Corp., 100 Sackville St., Halifax, bus terminal, to Fundy Constr. Co., Ltd., 7 Russell Ave., Halifax. Est. $200,000.

Ont., New Toronto—PLANT—Schlegel Co. of Canada, Ltd., 165 Dufferin St., Toronto, steel, brick plant, 18 St., to Anglin-Norcross, Ontario, Ltd., 57 Bloor St. W., Toronto, approx. $300,000. Mathers & Haldenby, 57 Bloor St. W., Toronto, archts.

Ont., Peterborough—PLANT—Tilco Plastic Co., A. Laverdiere, mgr., plant, Park Hill Rd. and Park Sts., to Eastwood Constr. Co., Ltd., 358 George St. N., P.O. Box 796, approx. $200,000.

Ont., Toronto—GENERATOR HOUSE—Consumers Gas Co., 19 Toronto St., generator house exten., to Anglin-Norcross, Ontario, Ltd., 57 Bloor St. W., approx. $65,000. C. B. Dolphin, 415 Eastern Ave., archt.

Ont., Toronto—FACTORY—Standard Sanitary & Dominion Radiator, Ltd., 800 Lansdowne Ave., factory addn., to Milne & Nicholls, Ltd., 57 Bloor St. W., approx. $135,000. Prack & Prack, Pigott Bldg., Hamilton, archts.

Ont., Windsor—FACTORY—Canadian Motor Lamp Co., Ltd., 2492 Seminole St., 18x317 ft. factory, 30x40 ft., brick, steel office, to Allan Constr. Co., Ltd., 44 Wyandotte St. E., approx. $150,000.

UNCLASSIFIED

Construction Reports received since this section went to press will be found in Last Minute Construction Reports.

BIDS ASKED

Bids Asked July 29

†**Fla., Bradenton** — REMOVING PIERS — U. S. Eng., 575 Riverside Ave., Jacksonville, removing 3 bridge piers from Manatee River, Inv. W-08-123-46-89.

Bids Asked July 30

Wis., Sparta—SWIMMING POOL, etc.—City, City Hall, 60x165 ft. swimming pool, 10x58 ft. concrete wading pool. Plans deposit $10. Boyum, Schubert & Sorenson, La Crosse, archts. CD 4/17—ENR 4/25.

Bids Asked July 31

Que., Mechins—WHARF—Dpt. P. Wks., Ottawa, Ont., wharf repairs and reconstruction. $50,300. Plans deposit $20. E. Blais, c/o owners, acting engr. CD 4/8—ENR 4/18.

Bids Asked August 12

†**New Mexico and Texas**—TRANSMISSION LINE—Bureau Reclamation, Dpt. Interior, Denver, Colo., Alamogordo-Hollywood, 115 kilovolt transmission line, Rio Grande Project, New Mexico and Texas, Spec. 1424.

Bids Asked August 26

†**Arizona-Nevada**—TRANSMISSION LINE — Bureau Reclamation, Denver, Colo., Phoenix-Tucson No. 2, 115 kva. transmission line, Davis Dam Proj., southwest part of Arizona, Spec. 1415.

LOW BIDDERS

★†**Calif., Alameda**—AIR STATION BLDGS —Yards & Docks Annex, Navy Dpt., Arlington, Va., rejected bids June 25, converting B-1B type barracks to apartments, Naval Air Station, Spec. 17941. L. B. $924,853.

La., New Orleans—AIRPORT BLDG. REPAIRS—State Dpt. Finance, Baton Rouge, rejected bids May 24, repairing bldgs. at the New Orleans Airport. Pur. Req. D 61767 G. C. L. L.B. $29,846. CD 5/15.

Mass., Southbridge—SWIMMING POOL, etc. —Town, Bd. Selectmen, Town Hall, received no bids July 1, concrete swimming pool, incl. bathhouse, High St.

Mass., Winchendon—COMMUNITY FIELD—Town, Wendall Clark Trustees, July 3, community field, athletic facilities, Clark Memorial, Central and Summer Sts., from G. E. Duteau, P.O. Box 812, Springfield. $45,482.

N. C., Morehead City—DOCK REPAIRS—Morehead City Port Comn., c/o E. P. Hicks, asst. mgr., received no bids June 25, dock structure repairs. Will readvertise. CD 6/18—ENR 6/20.

Tex., Nacogdoches — STEAM TUNNEL — Stephen F. Austin State Teachers College rejected bids steam tunnel and steam lines (running to 3 bldgs.). L.B. $44,000. CD 6/19—ENR 6/27, under LB.

★**Tex., San Antonio** — UNDERGROUND AUTO PARKING—City, rejected bids June 20, underground 2 story parking auto garage system Travis Park, $1,500,000. Project abandoned. T. Coghill, City Hall, engr. CD 6/18—ENR 7/4, under LB.

Tex., San Antonio—RUNWAYS, etc.—Monroe & Witt Flying Service, c/o Hurt Airport, July 5, constructing, runways, taxiways, parking apron, from Southern Constr. Co., 318 N. Center St. $79,000. CD 7/2—ENR 7/11.

†**Va., Fort Eustis**—TRAINING RAILROAD —U. S. Eng., Fort Norfolk, June 25, training railroad, Spec. 468, from A. S. Wickstrom, Skaneateles, N. Y., $157,192. CD 6/19.

Wisconsin — ELECTRIC TRANSMISSION — Dairyland Power Co-operative, LaCrosse, electric transmission river crossing over Mississippi River, LaCrosse Co., from Industrial Contg Co., 3050 4 Ave. S, Minneapolis, Minn., $149,500. Stanley Engrg. Co., Muscatine, Ia. engrs. CD 6/20—ENR 7/11.

CONTRACTS AWARDED

†**Calif., Muroc**—AIRFIELD BLDG., etc.—U. S. Eng., 751 Figueroa St., Los Angeles, engine test cell bldg., sewer, water, electrical and fueling sys., road, parking areas, Army Air Field, Serial 46-167, to J. F. Cummins, 245 E Olive St., Burbank. $87,433.

Calif., San Francisco—AIRPORT IMPRVTS —United Air Lines, Post and Powell Sts., 2 B-29 hangars, and maintenance and overhaul base at San Francisco Airport, to Austin Co., 618 Grand Ave., Oakland. Est. $235,000 and over $100,000 respectively.

Florida — POWER LINES — Withlacooche River Electric Co-operative, Dade City, power lines, Pasco, Hernando and Citrus Counties own forces. $114,000. Awarded 7/8.

†**Fla., Jacksonville**—GUN RANGES—Yards & Docks Annex, Navy Dpt., Arlington, Va., addns., imprvs., Mobile Target Machine Gun Ranges at Naval Air Gunners School, Spec. 16854, NOY 12652, to Ivy H. Smith Co., 1521 San Marco Blvd., Zone 7. Est. $140,350. Awarded 6/29. CD 6/12—ENR 6/27, under LB.

★†**Ia., Dubuque**—AIRPORT PAVING, etc —Civil Aeronautics Admin., c/o 5th Regional Office, 414 E. 12 St., Kansas City Mo., airport paving, duct installation, cover crop planting and incidental work at municipal airport, to S. J. Groves & Sons Co., 510 Wesley Temple Bldg., Minneapolis, Minn. Sched. 2. $928,991. Bids 6/20. CD 7/3—ENR 7/11, under LB.

★†**Md., Patuxent River (br. Wash., D. C.)** —AIR STATION BLDGS.—Yards & Docks Annex, Navy Dpt., Arlington, Va., quarters for married personnel at Naval Air Station to John McShain, Inc., Arlington, Va. $3,000,000 or more. CD 6/27—ENR 7/4.

†**Mass., Squantum** — AIR STATION IMPROVEMENTS—Yards & Docks Annex, Navy Dpt. Arlington, Va., June 13, water front facilities, riprap, marine timber work, sheet piling, underground drainage, grading, etc. Spec. 17824, to Coleman Bros. Corp., 40 Central St., Boston. $52,200. Bids 6/13. CD 6/19—ENR 6/27.

★†**N. C., Cherry Point (br. New Bern)**—AIR STATION BLDG.—Yards & Docks Annex, Navy Dpt., Arlington, Va., housing program for married service personnel, Marine Corps Air Station, Spec. 17940, to T. A. Loving & Co., Bank of Wayne Bldg., Goldsboro. $1,822,234. Bid 6/14. CD 6/21—ENR 6/27, under LB.

★†**N. C., Hollyridge** — ORDANCE TEST RANGE FACILITIES—Yards & Docks Annex, Navy Dpt., Arlington, Va., ordnance test range facilities Camp Davis, to George & Lynch, Delaware Trust Bldg., Wilmington, Del., $798,439. Bids 6/21. CD 7/2—ENR 7/11 under LB.

†**O., Cleveland** — FOUR BURNER TEST CELL ADDITION—National Advisory Com. for Aeronautics, Cleveland Municipal Airport, 1 story, bsmnt., 89x100 ft., brick 4-burner test cells addn., to Hunkin-Conkey Constr. Co., 1740 E. 12 St., $164,643. Awarded 7/2. CD 5/20.

Pa., Midland—ATHLETIC FIELD IMPROVEMENTS—School Dist. of Midland, Midland School, athletic field imprvs., grading to Kane O'Hord & Haeney, 65 Windranola Ave., Youngstown, O.; fencing, to Cyclone Fence Div., Baum Blvd., Pittsburgh. Est. $60,000. Osborn Eng. Co., 7016 Euclid Ave., Cleveland, O., engr. CD 7/27/45—ENR 8/9/45.

Pa., Pittsburgh—LOADING DOCK—Snyder Transfer Co., 3701 37 St., 1 story, T. shaped 150x100x60 ft., steel, brick, concrete block loading dock, to Uhl Constr. Co., 6001 Butler St. Est. $55,000.

†**Tex., Orange** — PIER — Yards & Docks Annex, Navy Dpt., Arlington, Va., addnl. pier facilities, spec. 18033, to Consolidated Steel Corp., Box 341, $216,933.

★†**Va., Portsmouth**—SHORE SERVICES—Yards & Docks Annex, Navy Dpt., Arlington, shore installations and services, NOY 13508, to Tidewater Constr. Co., Norfolk. $623,417. CD 5/2—ENR 5/9.

★†**Wash., Tacoma**—ELECTRICAL and MECHANICAL SERVICES—Yards & Docks Annex, Navy Dpt., Arlington, Va., electrical and mechanical services for constructing berthing facilities for inactive vessels at Tacoma Naval Station, Spec. 17739, to J. C. Boespflug Constr. Co., Securities Bldg., Seattle. $1,162,259. CD 7/1—ENR 7/11, under LB.

LAST MINUTE CONSTRUCTION REPORTS

WATER SUPPLY

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked August 6

Kan., Norton—City, F. E. Palmer, clk., water softening plant. Plans deposit $12. Wilson & Co., 223 N. Santa Fe St., Salina, engrs. CD 8/22—ENR 4/4.

Bids Asked August 22

W. Va., Hollidays Cove—City, S. Wright, mayor, City Hall, Contr. 1, intake pier and pump. station, incl. about 750 cu. yd. rein.-con. in intake pier, 2 deep well turbine type pumps, structural steel access bridge, piping, valves, etc.; Contr. 2, watermains; Contr. 3, distr. reservoir; Contr. 4, water treatment plant, incl. 2900 cu. yd. rein.-con. in settling basins, mixing tanks, filters and substructure, brick superstructure, piping, valves, water treating equip., filters, appurtenances. Plans deposit $30. A. LaFeber, 713 Temple Bar Bldg., Cincinnati, 2, O., consult. engr.; adv. ENR 7/18.

LOW BIDDERS

Tex., Liberty—City, O. F. Campbell, mayor, July 8, water sys. imprvs. from R. P. Farnsworth & Co., Inc., PO Box 74, Houston. $77,291. Est. $40,000. CD 6/24—ENR 6/27.

CONTRACTS AWARDED

N. D., Verona—City, WW sys., to J. A. Shaw Constr. Co., Fargo. Approx. $30,000. Bids 5/13. Dakota Eng. & Constr. Co., Valley City, engr.

O., Leipsic—City, R. M. Otto, W.W. Dpt., municipal water softening plant, 1 story, basmt., 27x30 ft., rein.-con., brick, concrete block bldg., 30x39x12 ft. rein.-con. settling basin, 15x15x11 ft. rein.-con. wash water tank, appurtenant piping, own forces. $43,173. Fiskbeiner, Pettit & Strout, Home Bank Bldg., Toledo, archts. CD 11/28/45—ENR 12/13/45.

SEWERS, WASTE DISPOSAL

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked July 29

Ia., Red Oak—City, F. H. McLaughlin, clk., intercepting and outfall sewer and sewage pump. plant, complete with motor driven sewage pumps, one 300 gpm, one 450 gpm and one 600 gpm, also, 5,507 ft. 16 and 18 in. c.i. pipe (alternate bids on vitr. clay or rein.-con. pipe), 15 rein.-con. or brick manholes. Plans deposit $. H. H. Henningson, Standard Oil Bldg., Omaha, Neb., engr. CD 8/16—ENR 8/8.

Bids Asked July 31

Massachusetts—Commonwealth of Massachusetts, 20 Somerset St., Boston, Contr. 137, aeration and sedimentation tanks, influent and effluent conduits, and grit channels and main bldg., substructure of Nut Island Sewage Treatment Plant. Plans deposit $25.

Bids Asked August 5

Kan., Oakley—City, at office G. L. Sparks, clk., 8,320 lin. ft. 8 in. sanitary sewer, 24 manholes, etc.; 3,100 cu. yd. excav., 51,000 lb. reinforcing steel, site grading, 13 tons c.i. pipe and fittings, 1,150 cu. yd. filter rock, etc. Plans deposit $5 and $10 respectively. Wilson & Co., 223 N. Santa Fe, Salina, engrs. CD 9/13/45—ENR 9/20/45.

Bids Asked August 5

Wash., Quincy—Town, Town Hall, sewerage sys. $75,000. Plans deposit $15. J. W. Carey & Assoc., Alaska Trade Bldg., Seattle, Zone 1, engrs. CD 2/28—ENR 3/21.

LOW BIDDERS

Mass., Lexington—Town, Bd. Selectmen, Town Hall, July 8, sewer mains, Manor Section, from C. & R. Constr. Co., 76 Bradeen St., Roslindale. $140,223. CD 7/2.

Mass., Westfield—City, City Clk., City Hall, will not construct sewage disposal treatment facilities, brick, steel and concrete, 1-19-P-65. $460,000. Project abandoned. CD 10/11/45—ENR 11/1/45.

N. Y., Kew Gardens—President Queens Boro, 120-55 Queens Blvd., Zone 15, July 2, sanitary sewers, appurtenances in 131 St., South Conduit Ave., across Sunrise Hy., easterly and southerly sides of 131 St., combined sewer, appurtenances 135 Pl., 133, 131 and Sutter Aves., 133, 134 and 135 Sts. from Turiano Foundation Corp., 3425 Giles Pl., New York, Zone 63. $229,569. CD 6/24—ENR 6/27.

CONTRACTS AWARDED

D. C., Wash.—District Comrs., District Bldg., stormwater sewer, New Mexico Ave. between Arizona Ave. and Newark St., etc., to Robert Lombardi, 615 Real Estate Trust Bldg. $69,654. Bids 6/11.

Ia., Ames—City, J. H. Ames, mgr., City Hall, approx. 4,000 ft., 18 to 42-in. concrete storm sewer, manholes and intakes, to Kramme & Jensen, 1908 Eastern Blvd., Des Moines. $46,814. CD 5/9/44—ENR 5/18/44.

★**O., Toledo**—Standard Oil Co. of Ohio, Midland Bldg., Cleveland, 380 ft. reinforced steel and concrete settling basin, 260 ft. wide, and 20 ft. deep, with stand-still capacity of 2,000,000 cu. ft. to eliminate pollution in Maumee Bay, to Curro Constr. Co., Union Comm. Bldg., Cleveland. Est. $500,000. Awarded 6/17. A. G. McKee Co., 2300 Chestnut Hill, Cleveland, engr.

Tex., Liberty—City, O. F. Campbell, mayor, sanitary sewerage sys. imprvs., to R. P. Farnsworth & Co., Inc., P.O. Box 74, Houston, approx. $124,459. Est. $60,000. CD 6/24—ENR 6/27, under Water Supply.

BRIDGES

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked August 6

N. Y., New York—Executive Dir. of The Port of New York Auth., 111-8th Ave., Zone 11, paving center roadway of George Washington Bridge, Contr. GWB-3; adv. ENR 7/18.

LOW BIDDERS

★**N. Y., New York**—Triborough Bridge & Tunnel Auth., Administration Bldg., Randall's Island, Zone 3, painting Triborough bridge and approaches, etc., from J. I. Haas Co., Inc., 51 E. 42 St., Zone 17, TM-8, $116,473; TM-9, $367,095; TM-10, $75,269; TM-8, 9, 10, $558,837. CD 6/24—ENR 6/27.

STREETS AND ROADS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked July 22

Mass., Boston — City, Dpt. P Wks., City Hall, sheet asphalt paving Boylston St., Ward 5, from Tremont St. to Park Sq., Bway., Ward 5, from Tremont to Eliot Sts., and Stuart St., Ward 5, from Tremont St. to Bway. Plans deposit $2.

Bids Asked July 23

Iowa — State Hy. Comn., Ames, maintenance bituminous surfacing hys., involving 58,680 gal. bitumen and 3,699 tons cover aggregate, State Ms-7, Div. I & IV; on roads in various state parks, 23,796 gal. bitumen and 1,601 tons cover aggregate, State Park No. 1-1946, Div. I to V; maintenance bridge painting 960 ft. steel girder viaduct over Iowa River at east corporate limits of Eldora on Iowa 57, M-1384, Hardin Co.

Bids Asked July 23

Mass., Boston — City, Dpt. P. Wks., City Hall, bituminous concrete paving Templeton St., Ward 16 from Adams to Florida St. Plans deposit $2.

Bids Asked July 24

Maine — State Hy. Comn., Augusta, bituminous macadam paving 3.52 mi. Route US 202 and 22 ft. span, rein.-con. slab bridge, over Pleasant Rd., F.A.P. No. S-23 (2), Gray and Windham; 3.2 mi. bituminous macadam on Route U.S. 1 SN-FAP F298 (11), Bridgewater, $120,000. Extended date. CD 7/9.

Bids Asked July 25

Mass., Boston — City Dpt. P. Wks., City Hall, sheet asphalt paving East Fourth St., Wards 6 and 7, from Dorchester to G Sts. Plans deposit $2.

Bids Asked July 26

Mass., Boston — City, Dpt. P. Wks., City Hall, sheet asphalt paving Bremen St., Ward 1, from Porter to Bennington Sts. $110,000. Plans deposit $2.

Bids Asked August 1

★**Florida** — State Rd. Dpt., Tallahassee, clearing, grubbing, grading 1.349 mi. Rd. 376, between Rd. 140 in Jacksonville Beach and west, SP Job 7219-106, Duval Co., $275,000; widening, bituminous retread surfacing 9.571 mi. Rd. 13, between Rd. 3 in Yulee and Fernandina, SP Job 7406-106 and 7402-105, Nassau Co., $175,000; 0.54 mi. Rd. 14, between Rd. 2-A and Rd. 13 in Gainesville, SP Job 2607-105, Alachua Co., $15,000; bituminous mineral seal coating 10.722 mi. Rd. 49 between Union Co. line and Macclenny, Job 2702-901 Baker Co., 6.259 mi. Rd. 550 between Rd. 48 and 68, Job 7107-902 2.1 mi. Rd. 3, Orange Park, SP Job 7902-901, Clay Co., $30,000; 3.061 mi. Rd. 4, between Rd. 140-A and North Miami, Job 8703-103, plant mix bituminous retread surfacing 0.204 mi. Rd. 182, between Rd. 4 and Biscayne Bay, Job 8706-105, 7.887 mi. Rd. 26, between Rd. 4 and 14 mi. northwest, Job 8709-106, Dade Co., $55,000; reworking and widening, bituminous surfacing 2.442 mi. Rd. 172, between Belle Glade and northwest, Job 9317-105, Palm Beach Co., $35,000; 5.798 mi. Rd. 4, between Bonaventure and Cocoa, Job 7003-114, Brevard Co., $115,000; plant mix bituminous surfacing 10.359 mi. Rd. 3, between Ocala and north, Job 3603-106, Marion Co., $90,000. H. P Coloney, state hy. engr.

Bids Asked August 1

Ia., Mt. Pleasant — Bd. Supervs. Henry Co., grading 32.4 mi. secondary roads, involving 383,542 cu. yd. Class II and 12,000 cu. yd Class 11-A excav. M. H. Bryant, co. engr.

LOW BIDDERS

Delaware — State Hy. Dpt., Dover, bituminous concrete resurfacing 10.414 mi. New Castle Co., from George & Lynch, Jefferson House, Wilmington. $223,446. CD 6/13—ENR 6/20.

Maryland — State Roads Comn., Baltimore, July 9, imprv. roads, Contr. W1-197-1-111, from Wuller Paving Co., Salisbury. $124,019. CD 7/2.

Mississippi — State Hy. Comn., W. Spiva, dir., Jackson, rejected bids July 9, imprv. 9.617 mi. Bolivar Co. L.B. $173,339; 0.525 mi. Hinds Co. L.B. $39,158. Will readvertise CD 6/28.

★**Nevada** — State Dpt. Hys., Carson City, July 9, imprv. 9.084 mi. Eureka Co., from Strong Co., Springville, Utah, $380,125***5.633 mi. Humboldt Co., from W. W. Clyde & Co., Springville, Utah, $217,740***5.151 mi. Pershing Co., from Silver State Constr. Co., Inc., S. Main St., Fallon, $87,043. R. A. Allen, state hy. engr.

Pennsylvania — State Hy. Dpt., Harrisburg, rejected bids June 7, imprv. 9.921 ft. Armstrong Co. L.B. $431,303. CD 6/11—ENR 6/13, under LB.

Wash., Dayton — Columbia Co., Courthouse, rebuilding Patit Rd. from city limits to junction with Lewis Gulch Rd., from H. F. Green Co., Chronicle Bldg., Spokane. $49,441. Est. $48,495. C. A. Winnett, co. engr.

Wisconsin — State Hy. Comn., Madison, rejected bids May 28, imprv. 11.636 mi. Rusk and Price Counties. L.B. $870,492. CD 5/31—ENR 6/6 under LB.

CONTRACTS AWARDED

D. C., Wash. — District Comrs., District Bldg., surface treating various streets, to Corson & Gruman, 33 & K Sts. N.W. $44,710. Bids 6/19.

O., Toledo — City Serv. Dpt., J. W. Jewhurst, dir., repairing approx. 196,300 sq. ft. sidewalks to Pierce Constr. Co., 334 W. Bancroft St. $65,023. Bids 6/18. CD 6/6—ENR 6/13.

EARTHWORK, WATERWAYS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked July 23

†**Illinois**—U. S. Eng., 800 US Court House & Custom House, St. Louis, 1, Mo., levee work Scott Co. Drainage and Levee Dist., Scott Co. Ser. 23-065-47-3.

Bids Asked July 29

†**Iowa**—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., emergency levee repairs, Parson's Levee along Des Moines River, Lee Co., Spec 11-117-46-55.

Bids Asked August 8

†**California**—Bureau Reclamation, Denver, furnishing, del. f.o.b. cars at shipping point or f.o.b. cars at Central Valley, steel-pipe railings, stairs, partitions for installation in Shasta Dam and Powerplant, Kennett Div. Central Valley Proj., Spec. 1433.

Bids Asked August 19

†**Montana**—Bureau Reclamation, Kalispell, Mont., clearing part of Hungry Horse Reservoir site, Hungry Horse Proj., Spec. 1429.

Bids Asked August 19

†**Washington**—Bureau Reclamation, Customhouse, Denver, Colo., one 300-kva. indoor unit substation, consisting of high-voltage terminal and disconnect chamber, transformer sect., low-voltage circuit-breaker sect.; one 150-kva. indoor unit substation, consisting high-voltage terminal and disconnect chamber and transformer sect.; one 75-kva. indoor load center, consisting high-voltage terminal and disconnect chamber, transformer sect., and low-voltage circuit-breaker sect., for installation at Grand Coulee Dam, Columbia Basin Proj., Spec. 1428.

Bids Asked August 29

†**New Mexico**—Bureau Reclamation, Tucumcari, earthwork and structures, Sta. 413 plus 80 to Sta. 889 plus 00, Hudson Canal, Lateral Sys. Unit 5 and Troutman, Smith, and Harris Laterals, Tucumcari Proj., Spec. 1434.

EARTHWORK, WATERWAYS (Bids Asked. Cont'd.)

LOW BIDDERS

★**†Ark., Mountain Home**—U. S. Eng., 300 Broadway, Little Rock, July 11, Bull Shoals Dam Proj., from White River Constructors, P. O Box 3, Houston, Tex. **$24,263,935.** Est. $19,346,373. CD 6/28—ENR 7/4.

Massachusetts — Commonwealth of Massachusetts, 100 Nashua St., Boston, July 9, shore protection at Cedar Point, Scituate, from Bradford Weston, Inc., 116 Rockland St., Hingham, **$44,100,** est. $61,875; dredging basin at Winthrop Yacht Club and at Cottage Park Yacht Channel, from Bay State Dredging & Constr. Co., 62 Condor St., **$27,085** and **$27,225** respectively. CD 7/3.

New Jersey—State Div. Navigation, Dpt. Conservation, State House Annex, Trenton, Zone 7, June 28, from Hill Dredging Co., Ventnor, dredging inland waterway channel in Grassy Sound Channel, No. 235, **$25,970;** in Great Sound, Middle Twp., No. 236, **$37,875;** Ludlam Bay, No. 237, **$26,400.** CD 6/18—ENR 6/20.

†Ohio—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., rejected bids Apr. 29, stilling weir and gage house at Berlin Dam, near Youngstown, Mahoning Co. L.B. **$94,657.** Will readvertise. CD 5/21—ENR 5/23, under LB.

†Oregon—U. S. Eng., Pittock Block, Portland, July 8, restoring levee and bank protection along McKenzie River, Inv. 413, from O. Butler & Son, 4910 N.E. 42 St., Portland. **$37,110.** Bids 7/9.

†Virginia—U. S. Eng., First and Douglas Sts. N.W., Wash., 25, D. C., June 27, dredging Rappahannock River and Totuskey Creek, from Norfolk Dredging Co., Norfolk. **$64,624.** CD 6/14—ENR 6/20.

CONTRACTS AWARDED

†Arizona—Bureau Reclamation, Denver, Colo., 3 motor driven gate hoists for installation at Davis Dam, to United States Pipe & Mfg. Co., 249 L Ave., San Francisco, Calif. **$144,225.** CD 1/28—ENR 1/31.

†Arkansas—U. S. Eng., P.O. Box 97, Memphis 1, Tenn., earthwork, Items R-140R and 140R, R1504-158R, to Mears Constr. Co., Osceola, **$32,500** and **$35,750** respectively, est. $43,700 and $49,181 respectively; Item 158R to R 164R, Item 166R to R 190R, to Pioneer Contracting Co., Inc., 453 Plum Ave., Memphis, Tenn., **$28,500** and **$58,800** respectively, est. $43,510 and $56,679 respectively. CD 5/13—ENR 5/16.

★**†New York**—U. S. Eng., Chimes Bldg., Syracuse, Zone 2, flood control project, Almond Reservoir, to Carlo Bianchi & Co., Inc., 20 Union Ave., Framingham, Mass. **$3,330,330.** Bids 5/20. CD 5/22—ENR 5/30, under LB.

†Washington—Bureau Reclamation, Denver, Colo., 1,188 trashracks, to Joshua Hendy Iron Works, 544 Market St., San Francisco, Calif., **$310,052;** seven 115 kva. oil circuit breakers for power plant at Grand Coulee Dam, to Allis-Chalmers Mfg. Co., 1126 S. 70 St., Milwaukee, Wis., **$115,350.** CD 3/8—ENR 3/4.

PUBLIC BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked July 22

†Me., Hallowell—Pub. Bldgs. Admin., 18 and F Sts., Wash., D. C., post office repairs.

Bids Asked July 23

†Mass., Winthrop—Pub. Bldgs. Admin., 18 and F Sts., Wash., D. C., post office repairs and imprvts., painting, etc.

Bids Asked July 30

†Calif., Soda Springs—U. S. Eng., 1209 Eighth St., Sacramento, Zone 8, overnight shelter, altering Snow Investigation Headquarters bldg., Spec. 1242.

Bids Asked August 5

†California—Bureau Reclamation, Denver, Colo., pipe fittings and valves for Keswick Powerplant, Central Valley Proj., Spec. 1403. Extended date. CD 7/1—ENR 7/11, under Earthwork, etc.

Bids Asked August 5

O., Sandusky—State, Soldiers & Sailors Home, S. Columbus Ave., rehabilitation 7 dormitory bldgs. $255,600. Inscho, Brand & Inscho, 60 E. Broadway, Columbus, archts.

Bids Asked

Ont., Aurora — Page & Steele, archts., 20 St. Clair Ave. W., Toronto, 1 story, bsmnt., 70x137 ft., brick, concrete school, for School Bd. $210,000. CD 1/4—ENR 3/7.

LOW BIDDERS

★**Conn., Westport**—Bd. Educ., July 10, general contract school addn., from J. H. Eisele Co., Inc., 18 E. 41 St., New York 17, N. Y., **$779,600*****plumbing, from F. W. Connolly, South Norwalk, **$49,900*****electrical work from Arc Electric Constr. Co., 739 2 Ave., New York, N. Y., **$51,440*****heating from T. G. Egan Refractory Engrg. Co., 70 Kane St., Brooklyn, N. Y., **$99,261.** CD 6/27—ENR 7/4.

La., Georgetown—Grant Parish School Bd., rejected bids May 3, 1 story, brick high school. L.B. **$69,432.** Will readvertise. CD 4/17—ENR 4/25.

★**†Mont., Fort Peck**—U. S. Eng., Fort Peck, July 1, surge tanks, risers, surge tank housing structure for Fort Peck powerhouse, Spec. 24-016-46-33, from Fegels Constr. Co., Ltd., 711 Wesley Temple Bldg., Minneapolis, Minn., **$1,629,429.** CD 6/12—ENR 6/20.

R. I., Warwick—City, Municipal Offices, City Hall, July 9, general contract 2 story, bsmnt., brick, steel school, Nausauket Rd., from J. P. Flynn, 112 Lenox Ave., Providence. **$249,970.** CD 6/12—ENR 6/20.

CONTRACTS AWARDED

†D. C., Wash.—U. S. Eng., 1 and Douglas Sts., Wash., 25, D. C., revising south section, East Wing addn., Main Bldg., Inv. 57 (24) altering wards, elevator hoistways, Inv. 71 (35) etc. at Walter Reed General Hospital, to Herring & McCall, Hyattsville, Md. **$295,000.** CD 5/24—ENR 5/30.

★**†N. M., Los Alamos**—U. S. Eng., 4 and Gold Sts., Albuquerque, 300 permanent type houses for atomic bomb laboratory area, to Rob. E. McKee, P.O. Drawer 562, El Paso, Tex. **$4,389,846.**

†Wyoming—Bureau Reclamation, Custom House, Denver, Colo., electrical energy generating equip. consisting 8,300 hp. water turbine for Heart Mountain Power Plant, to S. Morgan Smith Co., York, Pa., **$61,136;** 5,000 kw. generator, to Elliott Co., Ridgeway, Pa., **$65,552.**

★**†Alaska, Fort Richardson**—U. S. Eng., Textile Tower, 7 St. and Olive St., Seattle 1, Wash., 100 duplex housing units, to Morrison-Knudsen Co., Inc., 319 Broadway, Boise, Idaho. **$1,224,000.**

COMMERCIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked July 23

Ont., Hornepayne—Canadian National Rys., E. R. Logie, ch. engr. (Central Region), Union Station, Toronto, Zone 1, 2 story, 2 wings, 30x94 ft., 31x133 ft., concrete, brick railway Y.M.C.A. $210,000. CD 12/24—ENR 1/10.

Bids Asked

La., Baton Rouge—G. A. Thompson, archt., Western Union Bldg., 4 story, masonry office, Highland Rd., for Cole Bros., Baton Rouge. Extended date. W. D. de Laureal, 2036 Broadway, New Orleans, engr. CD 5/9—ENR 5/16.

SOON LETS CONTRACT

Conn., Norwalk—St. Thomas the Apostle Parish, Rev. H. Flanagan, Norwalk, soon lets contract on revised plans Indiana limestone church, East Ave. and Fitch St. Over $205,000. E. F. Aliadi, Leroy Ave., Darien, archt. CD 3/29—ENR 4/4.

Tex., Dallas—Gulf States Life Insurance Co., Main and Akard Sts., soon lets contract office bldg. remodeling and addn., air-conditioning sys. $210,000. H. B. Gieb & Associates, Texas Bank Bldg., archts.

CONTRACTS AWARDED

Md. Baltimore—John Lamdros, 4100 Dorchester Rd., steel, frame, brick store and apartment to Baltimore Contractors, 711 S. Central Ave. Over **$250,000.** Hall, Turpin & Wachter, 80 Cathedral St., archts.

Mass., Springfield—Arthur Penno, 370 Memorial Ave., thirty 2 story, 24x26 ft., 6 room homes, Patricia Circle, own forces. **$225,000.**

N. Y., New York—North Side Savings Bank, 3230 Third Ave., Zone 56, bank, Bainbridge Ave., to John Escher, 831 Washington Ave., Zone 56. Est. **$225,000.** Bids 5/8. CD 4/29—ENR 5/2.

O., Toledo—Abraham Eiser, 125 Prescott, 3 and 4 story 23 unit concrete, steel, brick apartment, 415-429 W. Bancroft St., to A. J. Bode, 1220 Manila St. Est. **$205,000.** Awarded 6/14. Hahn & Hayes, 723 Adams, archts.

★**O., Willoughby**—Arrowhead Builders, Inc., 1040 Guardian Bldg., 1 story, 25x24 ft., 175 single, frame houses, own forces. **$1,250,000.**

INDUSTRIAL BUILDINGS

Additional earlier Construction Reports will be found in the regular section.

BIDS ASKED

Bids Asked July 23

Conn., Meriden—FACTORY—Cuno Engrg. Corp., S. Vine St., factory addn. $240,000. Malcolm Knox, 805 Main St., Hartford, engr. CD 5/22—ENR 6/13.

Tex., Baytown—LOCKER—Humble Oil & Refining Co., Humble Bldg., Houston, soon lets contract 3 story, rein.-con., tile, glass block panels locker bldg., air conditioning at refinery plant. $100,000. Nunn & McGinty, 2017 W. Gray, Houston, archts. CD 5/9—ENR 5/30.

Mass., Newton—MILK PLANT—Deerfoot Farms Co., 100 Hallock St., Roxbury and Southboro, 1 story, brick, steel concrete full processing milk plant facilities. $55,000. W. C. Stohldrier & R. G. Zetsche, North et Bldg., White Plains, N. Y., archt.

O., Bedford—FACTORY—Torq Electric Co., Co., J. E. Greenhut, 34 Interstate Rd., 2 story, brick, steel, concrete factory addn. $60,000. F. W. Mettler, 4004 Bluestone Rd., engr.

O., Cleveland—FACTORY, etc.—Star Welding Co., 1104 E. 134 St., brick, steel, factory and office. $60,000. W. S. Ferguson, 2242 Euclid Ave., engr.

O., Youngstown—PLANT—Truscon Steel Co., P. Robertson, mgr., 60x200 ft. new bay at north end of plant to house hardware presses.

Tex., Houston—PLANT—Mosher Steel Co., 3910 Washington St., plant bldg. $65,000. CD 2/27—ENR 3/14.

CONTRACTS AWARDED

Mass., Worcester—PLANT—Neponset Fur Storage Co., Worcester, brick, steel cold storage plant for furs, to R. L. Whipple Co., 44 Portland St. Est. **$100,000.** J. S. Billerian, 9 Walnut St., archt. CD 6/25—ENR 7/4.

Mass., Worcester—WAREHOUSE—Summers Realty Co., 218 Summer St., 2 story, 70x110 ft. and 50x70 ft., brick, concrete warehouse. Owner builds. **$55,000.** C. W. Buckley, 311 Main St., archt.

O., Cleveland—FACTORY—Midland Steel Products Co., 10600 Madison Ave., 60x450 ft. and 80x350 ft., steel factory equip. storage addn., to Sam W. Emerson Co., 1836 Euclid Ave. **$100,000.** A. E. Rowe, 1900 Euclid Ave., engr.

Pa., Ellwood City—PLANT—Manufacturers Light & Heat Co., propane-air plant, incl. 16 giant propane storage tanks each with capacity for 30,000 gal. in Franklin Twp. near here, to J. F. Pritchard & Co., Fidelity Bldg., Kansas City, Mo. Awarded 7/8.

Pa., McKees Rocks—FACTORY—Federal Enameling & Stamping Co., McKees Rocks, 5 story, 100x185 ft., brick, steel factory addn. to Brookside Lumber Co., Brookside Farms, Pittsburgh. Est. **$100 000.**

R. I., Westerly—SHOP, STORAGE and GARAGE—Narragansett Electric Co., 49 Westminster St., Providence, 1 story, 100x125 ft., brick, steel, concrete utility bldg., shop, storage and garage, Canal St., to Angelo Gencarelli, Westerly. Est. **$62,000.**

Tex., Fort Worth—SHOP, etc.—Southwest Chevrolet Co., 915 W. 7 St., auto service shop, parts, storage and display bldg., to B. B. Adams & Son, 1st Natl. Bank Bldg. **$56,712.** W. G. Clarkson, 610 1st Natl. Bank Bldg., archt.

★**Wash., Bellingham**—PLANT—Puget Sound Pulp & Timber Co., Bellingham, paper board plant, to Howard S. Wright Co., 401 Yale Ave. N., Seattle. Est. **$500,000.** CD 5/29—ENR 6/13.

Que., Joliette—WAREHOUSE—Imperial Tobacco Co. of Canada, Ltd., 3810 St. Antoine St., Montreal, tobacco leaf warehouse, to Gregorie Perreault, 567 St. Viateur St., approx. **$300,000.** CD 6/12—ENR 6/20.

UNCLASSIFIED

Additional earlier Construction Reports will be found in the regular section.

★**N. Y., St. George** — FERRY TERMINAL, etc. — Dpt. Marine & Aviation, Pier A North River, New York, Zone 4, Contr. 2501, demolition of Staten Island Ferry Terminal; Contr. 2502, borings for Staten Island Ferry Terminal. Plans deposit $2. CD 5/31/45—ENR 5/31/45.

LOW BIDDERS

Mass., Melrose — ATHLETIC FIELDS—City, Park Commissioners, July 8, athletic fields, from B. F. Quinby, 854 Hammond St., Brookline. **$58,900.** CD 7/3—ENR 6/27.

CONTRACTS AWARDED

Calif., San Leandro — IMPRV. PLAYGROUNDS — San Leandro Bd. Educ., 451 Hepburn St., grading, surfacing and paving playgrounds at 3 schools, to J. H. Harris, 2657 9 St., Berkeley. **$53,068.** Awarded 7/9. Dragon, Schmidts & Hardman, 2068 Allston Way, Berkeley, archts.

★**†Md., White Oak** — WIND TUNNEL — Yards & Docks Annex, Navy Dpt., Arlington, Va., supersonic wind tunnel at Naval Ordnance Laboratory, to C. H. Tompkins Co., 907 16 St. N.W., Wash., D. C. **$1,367,000.** Bids 6/19, awarded 6/28. CD 7/3—ENR 7/11, under LB.

Ore., Portland — HANGAR, etc. — United Air Lines, 30 E. 42 St., New York, N. Y., 1 story, 30x200 ft., rein.-con hangar addn. and administration bldg., at Columbia Airport, to E. E. Settergren, Henry Bldg. Est. **$150,000.** CD 11/9/45—ENR 12/13/45.

Tex., Graham — STADIUM — Bd. Educ., Graham Ind. School Dist., Graham, rein.-con., heavy timber stadium, to Harry Newton, Graham, approx. **$49,900.** Est. $50,000. CD 5/17—ENR 5/23.

PROPOSED PROJECTS

Including class of projects previously listed as *postwar*

COMMERCIAL BUILDINGS

PROPOSED WORK

Ala., Birmingham—Exchange Bank, 2001 11 Ave. S., plans by Warren Knight & Davis, Protective Life Bldg., 1 story, masonry bank bldg. Over $200,000.

★**Calif., San Francisco**—Jewelers' Merchandise Mart, c/o B. Nordman, 150 Post St., plans by Meyer & Evers, Kohl Bldg., 9 story, bsmnt., rein.-con., steel merchandise mart, $2,000,000. CD 12/24—ENR 1/10.

★**Calif., San Mateo**—El Cerrito Inc., c/o J. F. Barrett, pres., 114 Clark Dr., apartment house development. Over $1,000,000.

★**Calif., San Mateo**—Max Schmidt, 140 Roblar Rd., Hillsborough, and Ken Royce, 185 Bay Shore Blvd., San Francisco, 800 homes, County Poor Farm Rd., $4,000,000; hotel, swimming pool, riding stables, restaurant, etc., Oak Cove Park west of here, $2,000,000.

Conn., Hartford—Conn. Mutual Life Insurance Co., 140 Garden St., brick, steel apartment, Myrtle and Garden Sts. Over $205,000. Financing provided.

Conn., Middletown—Business Group, G. M. Williams, chn., Middletown, hotel, $205,000. Financing not provided.

Conn., New Haven—Church of the Redeemer, 575 Whitney Ave., R. J. Reigeluth, chn. Bldg. Comn., plans by D. Orr, 96 Grove St., brick, marble, Colonial design church, Whitney Ave. and Cold Spring Rd. $220,000. Financing provided. CD 1/27/44—ENR 2/10/44.

Conn., New Haven—First Federal Savings & Loan Assoc. of New Haven, 155 Church St., sketches by R. W. Foote, 157 Church St., brick, stone, steel banking institution, Elm St. $210,000. Financing provided.

Conn., Norwalk—Vincent Collins, 21 Elmwood Ave., South Norwalk, 35 frame single homes, Collingwood section, $220,000.

Conn., Sharon—Sharon Hospital, Sharon, plans by Ebbets & Frid, 15 Lewis St., Hartford, brick, steel hospital. $300,000. Financing not provided.

Conn., Waterbury—East Mountain Estates, Inc., Prospect St., plans completed 80 single family frame homes. $480,000. Financing provided.

La., New Orleans—St. Mary's of the Angels School, Alcuin Kammer, pastor, 2201 Gallier St., plans by A. S. Montz, Audubon Bldg., 1 story bldg., air-conditioned. $375,000.

★**Md., Baltimore**—Panway Housing Corp., Ellicott Dr. and Ashburton St., plans by Menefee & Marshall, Fort Morris Bldg., 365 residences $2,500,000. Financing provided. CD 4/29—ENR 5/9.

Mass., Dedham—Noble Greenough School, 607 Bridge St., sketches by J. R. Abbot, 14 Arlington St., Cambridge, brick, steel school, incl. 25 room dormitory, library and addnl. facilities, Bridge St. $300,000. Financing not provided.

Mass., Fairhaven—Joseph Lipsitt, 908 Purchase St., New Bedford, plans by Noble Assoc., 114 Middle St., New Bedford, 1½ story, 5 and 6 room, frame colonial housing units. $205,000.

★**Mass., Hyannis**—Cape Cod Hospital, J. A. Nickerson, pres. Bd. Trustees, plans by J. H. Ritchie & Associates, 38 Newbury St., Boston, 100 bed hospital addn., power plant, operating suite, obstetrics unit, kitchen and laundry. $1,225,000. CD 3/1—ENR 3/28.

Mass., Quincy—Archbishop of Boston, 2101 Commonwealth Ave., Brighton, plans by Maginnis & Walsh, 126 Newbury St., Boston, 1 story, bsmnt., brick, steel, stone parochial high school. Over $205,000. Financing provided.

Minn., St. Paul—St. Stanislaus R. C. Parish, Rev. W. J. Jiracek, 398 Superior St., plans by Slifer & Cone, 442 Endicott Bldg., 4 St., 2 story, 83x112 ft., rein.-con., brick school and gymnasium, $250,000.

★**Miss., Jackson**—Bruce Realty Co., Jackson, 60 brick houses. $500,000.

Mo., Branson—Skaggs Community Hospital Assn., Branson, hospital. $250,000.

★**Mo., St. Louis**—Frisco Employees Hospital Assn., c/o St. Louis-San Francisco Ry., Jefferson and Olive Sts., Springfield, 64 bed brick, concrete, steel, hospital addn., 4960 Laclede Ave., $250,000-$300,000; 120 to 132 bed brick, concrete, steel, stone, hospital $700,000.

Neb., Omaha—Creighton Preparatory High School, 25 and California Sts., high school. $300,000.

Nev., Las Vegas—Cornet 5-10-25 Cent Stores, 320 S. Fair Oaks St., Pasadena, Calif., plans 60% completed by M. L. Anderson, 1151 S. Broadway, Los Angeles, Calif., 2 story, bsmnt., 75x130 ft. rein.-con. store and office, 4 and Fremont Aves. $250,000.

N. H., Manchester—P. Theodore, 53 Elm St., plans by Koshier & Isaac, 922 Elm St., 76 one story, frame homes, S. Elm St. and Section. $460,000.

N. J., Camden—National Jewish Welfare Bd., 145 E. 32 St., New York, N. Y. and 621 Kaighn Ave., plans by Building Bureau of the National Jewish Welfare Bd., 145 E. 32 St., New York, N. Y., YMHA Bldg. $300,000. Financing provided.

N. J., Jersey City—American Stores Co., 424 N. 19 St., Phila., Pa., supermarket and parking lot. Over $205,000. Financing provided.

★**N. Y., Buffalo**—Ford Hotel Co., Inc., J. C. Udd, pres., 24 story, 1,058 room hotel, Delaware Ave. and West Huron St., $4,500,000.

N. Y., New York—Fordham University, 441 E. Fordham Rd., Zone 8, plans completed by J. W. O'Connor, 162 E. 37 St., Zone 16, 3 story dormitory and dining hall, at intersection of Fordham Rd. and New York & Harlem R. R. Co. right-of-way. $300,000. Financing provided.

★**N. C., Wilmington**—James Walker Memorial Hospital, W. B. McCaig, Bd. Mgrs., Rankin St., hospital addn. between present unit and Marion Sprunt Annex. To exceed $500,000.

★**O., Cleveland**—Ohio Bell Telephone Co., 750 Huron Rd., plans by Garfield, Harris, Robinson & Schafer, National City Bank Bldg., 1 story, 100x160 ft., steel, stone 3 story addn. to Michigan-Diamond telephone exchange, 7225 Bway., $290,000; 2 story, bsmnt., 45x98 ft., brick, steel telephone exchange addn., St. Clair Ave. and E. 123 St., $370,000.

★**O., Springfield**—Dr. E. Tulloss, pres. Wittenberg College, Springfield, gothic style chapel, main auditorium seating 1,500 persons. $500,000. Financing provided.

Ore., Milton—Milton Investment Co., Milton, plans by E. G. Morgan, Walla Walla, Wash., 6 story, 60 x 120 ft., rein.-con. hotel. $250,000. Financing provided.

Pa., Norristown—J. O. Panati, 1915 W. Erie Ave., Phila., preliminary plans completed apartment. $250,000. Financing provided.

Pa., Phila.—Karlton Theatre, 1412 Chestnut St., altering theatre. Over $205,000.

Pa., Phila.—Owner, c/o C. H. Fries, archt., 3701 N. Broad St., plans under way apartment and store. $205,000. Financing provided.

Pa., Phila.—Owner, c/o Murray Realty Co., 1616 Walnut St., plans by B. Price, 1911 Pine St., shopping center. $220,000. Financing provided.

Pa., Phila.—Temple University Hospital, Broad and Ontario Sts., plans by L. Magaziner, 1701 Walnut St., addns., alterations to 8 story, research laboratory. Over $205,000. Financing provided. C. H. Wolf, 122 S. 16 St., consult. engr.

Tenn., Kingsport—Hammond American Legion Post 5, Kingsport, war memorial hall. $250,000.

★**Tenn., Knoxville**—Kerbela Temple of Mystic Shrine, c/o E. L. Hicks, Andrew Johnson Hotel, Shriner Temple with 3,500 seat capacity auditorium. $500,000.

Tex., Corpus Christi — Diocese of Corpus Christi, Rev. E. B. Ledvina, DD, LLD, Bishop, Corpus Christi, school, teacherage housing, etc., $210,000; high school, $210,000. Financing provided.

★**Tex., Dallas**—Nieman-Marcus Co., Main and Ervay Sts., plans by H. K. Smith, c/o Highland Park Shopping Village, Dallas, retail or commercial store, parking lot, $500,000. Financing provided. CD 4/2—ENR 4/18.

★**Tex., Dilly** — Presbyterian Church of U. S. A., Committee on National Missions, Rev. S. L. Terry, plans by R. H. H. Hugman & Associated Project Archts., 107½ W. Commerce St., San Antonio, (1st unit), 4 story hospital, $250,000; (2nd unit) hospital addn. and allied facilities, $750,000. Financing not provided.

Tex., Houston—Union Baptist Assoc., 2600 Chew St., educational institution bldg. $300,000. Financing provided.

Utah, Price—J. Bracken Lee & Assoc., Price, plans by S. Winburn, 619 Beason Bldg., Salt Lake City, 5 story, 60 room hotel, $340,800.

Wash., Seattle—G. D. Darland, 507 N. 62 St., Zone 3, plans by G. W. Bentley, 4105 Brooklyn Ave., Zone 5, roof garden restaurant, Bell St. Terminal, $250,000. Financing not provided. CD 4/3—ENR 4/11.

Wash. Seattle—Seattle General Hospital, 5 Ave. and Marion Sts., Zone 4, hospital. Over $205,000. Financing not provided.

Wash., Wenatchee — Cascade Recreation, Inc., Wenatchee, hotel on shore of Lake Wenatchee, $400,000.

Man., Winnipeg—F. Zeller, 505 Garlies St., 46 residences, Kildarrock St. $230,000.

N. B., Fredricton—Ready Built Homes, Ltd., Fredricton, 50 dwellings, $225,000.

Ont., Galt—J. A. MacDonald, 342 E. Main St., 3 story, 75 room, concrete, steel hotel, $250,000.

★**Ont., Ottawa**—Canadian Bank Note Co., Ltd., 224 Wellington St., plans by D. E. Kertland, 36 Summerhill Gardens, Toronto, 3 story, rein.-con. bank note plant, Rideau Garden, corner Riverdale Ave. and Echo Dr., $600,000. CD 4/11—ENR 4/25.

Ont., Ottawa—Grace Hospital Bd., Wellington St., hospital wing. $225,000.

Ont., Toronto—Famous Players Corp., Royal Bank Bldg., 75x166 ft. theatre, W. Bloor St. $225,000.

Ont., Toronto—Richmond-Adelaide Lands, Ltd., c/o A. Hazlett, 223 Dunnegan Rd., 40 suite or two 20-suite apartments, Avenue Rd. and Oxtan Ave. $250,000.

Que., Gatineau—Canadian National R. R., B. Wheelright, ch. engr., Central Station, Montreal, Que., hotel, Gatineau National Park $250,000.

★**Que., Pointe aux Trembles**—Rev. Sisters Reparatrices de la Reparation, 3601 Rousselier St., plans by Gascon & Parant, 934 St. Catherine St. E., Montreal, Creche infants home, $1,000,000.

★**Que., Quebec City**—Housing Enterprises, 395 W. Fleet St., Toronto, Ont., 150 dwellings. $750,000.

INDUSTRIAL BUILDINGS

PROPOSED WORK

★**Ill., Monsanto**—SERVICE PLANT—Monsanto Chemical Co., 1700 S. Second St., St. Louis, Zone 4, remodeling, addns., to former government-owned chemical warfare service plant for use in peacetime chemical products. $1,000,000.

Ind., Indianapolis—PLANT—Banquet Ice Cream Co., N. Capitol Ave., brick, concrete plant addn. $100,000.

Kan., Kansas City—PLANT—Commercial Equip. Co., 1416 McGee St., plans by J. F. Lauck, 6225 Brookside Blvd., mfg. plant, Fairfax Dist. $150,000.

Mass., Cambridge—LABORATORY, etc.—Harvard University, 1 story, bsmnt., 50x180 ft. 2 story, bsmnt., 50x100 ft. brick, steel cyclatron bldg. and laboratory to McCreery & Theriault, 126 Newbury St., Boston, est. $250,000. Coolidge Shepley Bulfinch & Abbott, 1 Court St., Boston, archts.

★**O., Toledo**—LABORATORY—Packard Motor Co., A. Nutt, plant mgr., plans by Beilman, Gillett & Richards, 618 Jefferson St., supersonic airflow laboratory for complete engineering of aircraft engines, $1,000,000. Financing provided.

Pa., Sharon — FACTORY — Westinghouse Electric Corp., Maloney Bldg., Blvd. of Allies, Pittsburgh, 40x418 ft., steel, concrete block transformer factory. $200,000. L. C. Mechling, Maloney Bldg., Blvd. of Allies, Pittsburgh, engr.

Tex., Houston—BUS GARAGE—Houston Transit Co., 2510 Crockett St., plans 30% completed, bus service garage. $250,000. Financing provided.

★**Tex., Robstown**—PLANT—South Texas Electric Co-operative, c/o C. M. Wagner, mgr. Nueces Elec. Co-operative, Robstown, electric generating plant. $2,225,000. Financing not provided.

W. Va., Huntington—RIVER TERMINAL—Pure Oil Co., L. A. Hill, dist. mgr., Huntington, river terminal, incl. pier, warehouse and storage facilities for handling 1½ m. g. gasoline. $200,000.

W. Va., Triadelphia—PLANT—Valley Camp Coal Co., Triadelphia, 4 story, 50x100 ft., steel coal cleaning plant, coat tipple, $250,000. McNally Pittsburgh Mfg. Co., 1017 Bessemer Bldg., Pittsburgh, consult. engrs.

Wis., Beloit—FACTORY—Beloit Iron Works, 815 2 St., 1 story, 130x190 ft., steel, salvaged steel siding factory addn. $198,000.

Wis., Milwaukee — FACTORY — Milwaukee Envelope Mfg. Co., 1129 N. 7 St., Zone 3, plans by F. J. Hinton, 1721 N. Water St., Zone 2, 1 story, 160x254 ft., and 30x80 ft factory bldgs. $175,000.

Wis., Rhinelander — FACTORY — Daniels Mfg. Co., Rhinelander, plans by A. F. Billmeyer & Son, Wisconsin Rapids, 1 story, bsmnt., 200x200 ft., steel, brick, tile factory addn., and remodeling. L. A. DeGuere, Wisconsin Rapids, engr.

B. C., Wells—SHAFT SINKING—Cariboo Gold Quartz Mines, Ltd., 675 W. Hastings St., Vancouver, shaft sinking, etc., 50 housing units. $175,000.

Ont., Lingman Lake—DIAMOND DRILLING—Sagawana Gold Mines, Ltd., 19 Alcuna Ave., Toronto, diamond drilling, Patricia Dist. $100,000 available.

★**Ont., Toronto** — PLANT — Paton Mfg. Co., Ltd., 33 Melinda St., modernizing plant, $500,000.

Proposal Advertisements see pp. 26 to 30

OFFICIAL PROPOSALS

OFFICIAL PROPOSALS

Bids. July 25 (156)

Bridges

MAINE TURNPIKE AUTHORITY

MAINE TURNPIKE

Section 1

KITTERY TO PORTLAND

NOTICE TO BIDDERS

Sealed bids for the construction of bridges and grade separation structures for Section 1 of the Maine Turpike will be received at the offices of the Maine Turnpike Authority, Kennebunk, Maine, until 10:00 A.M., Eastern Standard Time, July 25, 1946, and then publicly opened and read.

Forty (40) bridges and grade separation structures are to be built. The work will be divided into nine (9) groups. A "group" consists of one or more structures. Combination bids will be permitted on any two or more groups and the work will be let under 1, 2, 3 or as many as 9 contracts. Bidders shall state in their proposals the group or combination of groups on which they will accept award of contract.

Each bid shall be accompanied by a Certified or Cashier's check on a solvent bank, payable to the Treasurer of the Authority, in an amount not less than three per cent (3%) of the total of the bid, which will be forfeited as liquidated damages if the bidder should fail to execute any contract awarded to him and to furnish performance bond within ten days after such an award; otherwise, checks will be returned to bidders. Where bids are made both on separate groups and on combined groups, a single deposit check based on the largest amount of work bid upon will be sufficient.

Copies of the plans and specifications are on file and may be examined at the office of the Maine Turnpike Authority, Kennebunk, Maine, and at the offices of the Consulting Engineers, 921 Walnut Street, Kansas City 6, Missouri; 55 Liberty Street, New York 5, New York; and Kennebunk, Maine. Copy of plans and specifications may be secured from the Turnpike Authority by depositing $15.00 for plans and specifications for each of groups 1, 5 or 8, and $40.00 for each of groups 2, 3, 4, 6, 7, or 9. Any bidder who has made such a deposit may secure extra blue print copies of any drawing upon payment of 25¢ per copy and of specifications upon payment of $2.00 per copy. Specifications without plans may be secured by depositing $5.00, with extra copies available upon payment of $2.00. All plans and specifications shall be returned to the Turnpike Authority and there will be refunded a total of one-half of each deposit, and the entire deposit will be refunded to bidders receiving contracts. There will be no refunds for payments made for extra prints or specifications.

Bids shall be based upon the contract documents and plans, and shall be made by filling out the Proposal form, executing it in proper manner, and delivering it in a sealed envelope.

The Authority reserves the right to reject any or all bids and to make awards as may be most advantageous to the Authority, and without technicalities as to procedure.

Requests for plans and specifications should be addressed to Maine Turnpike Authority, P. O. Box 356, Kennebunk, Maine.

MAINE TURNPIKE AUTHORITY
Joseph E. Sayward, Chairman

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
Consulting Engineers

Kennebunk, Maine
July 1, 1946

OFFICIAL PROPOSALS

Bids: July 23 (147)

Construction of Sewerage System

Sealed proposals will be received by the Selinsgrove Sewerage Authority, Snyder County, Pennsylvania, until 8:00 o'clock P.M. (Eastern Daylight Time) on July 23, 1946, at which time and place the bids will be publicly opened and read aloud, for the Construction of Sewerage System. Copies of the Plans, Specifications and other Contract Documents can be obtained from Richard J. Harman, Consulting Engineer, 222 N. Third Street, Harrisburg, Pennsylvania, upon a deposit of $20.00 for each set of documents. If the documents are returned in good condition within five (5) days after the opening of bids, the full amount of the deposit for one set will be refunded with a deduction of $10.00 to defray the actual cost of reproduction of the sets of documents. If the documents are not returned within the time stated, the entire amount of deposit will be forfeited.

A certified check equal to five percent (5%) of the amount of the bid must be submitted with the proposal as bid security. A bid bond may be substituted for a certified check.

No bid may be withdrawn for thirty (30) days after the scheduled closing time for receipt of bids.

The Selinsgrove Sewerage Authority reserves the right to waive any informalities in or to reject any or all bids.

F. M. Machmer, Secretary
Selinsgrove Sewerage Authority

Bids: Aug. 6 (146)

Construction of Sewer

TOWN OF STRATFORD, CONNECTICUT

NOTICE TO CONTRACTORS

Bids will be received by the Town of Stratford on August 6, 1946, at 3:30 o'clock P.M., Daylight Saving Time, for the construction of the East Trunk Sewer and Appurtenances.

Information may be obtained at the offices of Bowe, Albertson & Associates, Engineers, 110 William Street, New York City and at the office of the Town Manager, Town Hall, Stratford, Connecticut, between the hours of 10 A.M. and 4 P.M., daily except Saturdays and Sundays.

TOWN OF STRATFORD, CONNECTICUT
HARRY B. FLOOD
TOWN MANAGER

Dated, June 24, 1946.

Bids: Aug. 6 (166)

Paving Center Roadway

THE PORT OF NEW YORK AUTHORITY
GEORGE WASHINGTON BRIDGE
CONTRACT GWB-3

Sealed proposals for paving the center roadway of the George Washington Bridge will be received at the office of the Executive Directors of The Port of New York Authority, Number 111 Eighth Avenue, New York 11, N. Y., until 11:00 o'clock, on the morning of Tuesday, August 6, 1946, and thereafter in the Auditorium of the Authority at the same address until 11:30 A. M., on the same date, at which latter time and place said proposals will be publicly opened and read.

Contract documents may be seen at the office of the Chief Engineer, The Port of New York Authority, Room 1538, 111 Eighth Avenue, New York City, and copies will be furnished upon deposit of $10.00 per set. The deposit will be remitted if the documents are returned in good condition, not later than thirty days after the opening of proposals.

THE PORT OF NEW YORK AUTHORITY
Howard S. Cullman, Chairman.

New York, July 18, 1946.

OFFICIAL PROPOSALS

Bids: Aug. 22 (167)

Waterworks Construction

Sealed bids or proposals will be received by the City of Hollidays Cove, West Virginia, until Twelve o'clock (12:00) Noon Eastern Standard Time, August 22, 1946 in the City Solicitor's Office, Hollidays Cove, West Virginia, for the following work:

CONTRACT #1—INTAKE PIER AND PUMP STATION, including about 750 cubic yards of reinforced concrete in the intake pier, two deep well turbine type pumps structural steel access bridge, piping, valves controls, etc.

CONTRACT #2—WATER MAINS, including cast iron pipe of various sizes from four (4") inch to sixteen (16") inch, cast iron fittings, gate valves, etc.

CONTRACT #3—DISTRIBUTING RESERVOIR of about 6 M.G. capacity and including approximately 4000 cubic yards of reinforced concrete, piping, valves, etc., and

CONTRACT #4—WATER TREATMENT PLANT, including 2900 cubic yards of reforced concrete in the settling basins, mixing tanks, filters and substructure, and brick superstructure, piping, valves, water treating equipment, filters and appurtenances.

Plans and specifications may be obtained from Alfred LeFeber, Consulting Engineer 713 Temple Bar Building, Cincinnati 2 Ohio, upon deposit of $20.00 for each set of contract drawings. Ten dollars ($10.00) will be refunded for each set of contract drawings and specifications returned in good condition. Plans will be available July 16 1946. Specifications will be available August 1, 1946.

Samuel Wright,
MAYOR

Bids: Aug. 13 (165)

Street and Park Improvements

VILLAGE OF RIDGEWOOD

NOTICE TO CONTRACTORS

Sealed bids will be received by the Board of Commissioners of the Village of Ridgewood at the Municipal Building at 8:15 P.M. Daylight Saving Time on August 13 1946, for the improvement of South Walnut Street, Dayton Street and Van Neste Square adjacent to Municipal Monument Site, including ecavation, grading, paving, concrete curb and sidewalk, rubble retaining walls storm sewer construction and miscellaneous items for park improvements.

Plans, specifications and forms of proposal may be obtained at the Engineering Department, 38 Oak Street on or after July 18, 1946 by paying a deposit of $10.00 (Not returnable).

Each bid must be enclosed in a sealed envelope with the name of the bidder thereon and endorsed "South Walnut Street Dayton Street and Van Neste Square Improvement", and must be accompanied by a certified check drawn to the order of the Village of Ridgewood for ten percent (10%) of the amount bid.

The right is reserved to reject any or all bids, or to waive any informalities therein if deemed in the best interest of the Village of Ridgewood so to do.

ALBERT J. FABER,
Commissioner of Public Works

Additional
Official Proposals
on pages 27 thru 34

OFFICIAL PROPOSALS
(Continued from page 26)

Bids: Aug. 29 (165)

Subway

CITY OF CHICAGO DEARBORN STREET SUBWAY.

CONTRACT D-8.

Sealed bids, endorsed "PROPOSAL FOR DEARBORN STREET SUBWAY, CONTRACT D-8" will be received by the City of Chicago, in the county of Cook and state of Illinois, at the office of the Commissioner of Subways and Superhighways, Room 460, 20 N. Wacker Drive, Chicago 6, Illinois, until 1 o'clock P. M., Central Standard Time (being 2 o'clock P. M., Chicago Daylight Saving Time), on Thursday, August 29, 1946, at which place and time all such proposals will be opened publicly and read aloud by a representative of the Commissioner of Subways and Superhighways.

The work for which such proposals are invited consists of building a Station Tube Section in tunnel; Single Tube Sections of various lengths and sizes on tangents and curves in tunnel; a Junction in tunnel; a Crossover, Mezzanine Station and Station Tube Section in open cut; special and auxiliary structures in tunnel and open cut; reconstructing Freight Tunnels and the shoring and supporting of certain buildings, together with miscellaneous work appurtenant and collateral to all the foregoing, as specified in the Contract Documents and shown on the plans. Most of the work to be constructed in tunnel is to be constructed under compressed air and part of such tunnel work is to be constructed with the use of shields, as specified in more detail in the Contract Documents. The work is located in the right-of-way of the West Route of the Comprehensive Superhighway System (W. Congress Street and extensions thereof), in private property and in S. Dearborn Street, from the east bank of the South Branch of the Chicago River to W. Van Buren Street, in the city of Chicago, as described in more detail in the Requirements for Bidding and Instructions to Bidders.

All bids must be made upon blank forms of proposal as furnished by the Commissioner of Subways and Superhighways and included in the Contract Documents, and shall be made in accordance with the provisions contained in said documents.

The Contract Documents, including Standard Specifications for Subway Construction, Contract Requirements and Contract Plans, are on file and available to bidders at the office of the Commissioner of Subways and Superhighways at Room 460, 20 N. Wacker Drive, Chicago 6, Illinois. Copies of the Contract Documents may be obtained by depositing Twenty-five Dollars ($25.00) with the Commissioner of Subways and Superhighways, for each set of documents. The amount of the deposit for one set of documents will be refunded to each actual bidder who returns the said documents in good condition within ten (10) calendar days after the opening of bids. Fifteen Dollars ($15.00) will be refunded for each of all other sets of documents so returned.

Each proposal must be accompanied by cash or a certified check drawn on some responsible bank doing business in the city of Chicago, in the amount of One Hundred and Seventy Thousand Dollars ($170,000.00) payable to the order of the City of Chicago. Any proposal submitted without being accompanied by such cash or certified check may be considered informal and consequently may be rejected.

The City of Chicago reserves the right to reject any or all bids and to disregard any informalities in the bids and bidding.

No bid may be withdrawn, after the scheduled closing time for receipt of bids, for at least forty-five (45) calendar days.

CITY OF CHICAGO,
By VIRGIL E. GUNLOCK,
Commissioner of Subways

Chicago, Illinois, July 18, 1946.

Bids: July 31 (164)

Miscellaneous Construction

THE COMMONWEALTH OF MASSACHUSETTS METROPOLITAN DISTRICT WATER SUPPLY COMMISSION

As Enlarged by Chapter 705 of the Acts of 1945

Sealed proposals, prepared on the prescribed form and in accordance with instructions therein will be received at the office of the Metropolitan District Water Supply Commission, 20 Somerset Street, Boston, Massachusetts, until 11 A. M., Eastern Daylight Saving Time, July 31, 1946, and then at said office publicly opened and read aloud for Contract No. 137 for the construction of the aeration and sedimentation tanks; the influent and effluent conduits; and the grit channels and main building substructure of the Nut Island Sewage Treatment Plant at Nut Island in the City of Quincy, Massachusetts. The work includes constructing aeration and sedimentation tanks; influent and effluent conduits; grit storage tower foundations; main building foundations, grit channels, comminutor room, comminutor foundations and settings; pump sump, foundations and settings; and appurtenant work involving 20,000 cubic yards of reinforced concrete work and the caring for and installation of equipment furnished by the Commission. Each proposal must be accompanied by a deposit of security in the amount of at least five per cent of the total bid price. A bond in at least the full amount of the contract will be required of the successful bidder to secure the faithful performance of the contract, and for the payment of all persons performing labor or furnishing materials in connection therewith. Special attention is called to the requirements as to conditions of employment to be observed and to the minimum rates of wages prescribed under the provisions of Chapter 461, Acts of 1935, by the State Commissioner of Labor and Industries, for the construction of this public work. A schedule of such rates is incorporated in the contract documents and is on file and may be obtained at the office of the Metropolitan District Water Supply Commission. The information for bidders, the prescribed form of proposal, form of contract, plans, specifications and forms of bid bond and performance bond may be examined at the above address, and copies thereof obtained from Karl R. Kennison, Chief Engineer of the Commission, upon the deposit of $25, to be refunded only to bidders or to others returning them within ten days after the opening of bids. The site of the work may be seen by applying at the office of the Division Engineer, at Nut Island, Quincy, Massachusetts. The Commonwealth reserves the right to waive any informality in or to reject any or all proposals. No bidder may withdraw his bid within thirty days after the actual date of the opening thereof. A proposal which includes for any item a bid that is abnormally low or high may be rejected as unbalanced.

WILLIAM T. MORRISSEY, Chairman

June 26, 1946

Bids: July 26 (169)

Furnishing Water Meters

WASHINGTON SUBURBAN SANITARY COMMISSION

CONTRACT NO. 257-W

Sealed proposals for furnishing 3,000 ⅝-inch, 100 ¾-inch, 25 1-inch and 15 1½-inch disc water meters, will be received at the office of the Washington Suburban Sanitary Commission, Hamilton Street, Hyattsville, Maryland, until 11:30 A. M., Eastern Standard Time, Friday, July 26, 1946, at which place and time they will be publicly opened and read.

Specifications may be obtained from Harry R. Hall, Chief Engineer of the Commission, Hyattsville, Maryland.

Perry Boswell
Lacy Shaw
Frank B. Smith
Commissioners

U. S. Government

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 19, 1946. Sealed bids (Specifications No. 1402) will be received at the office of the Bureau of Reclamation, Yuma, Arizona, until 10 a. m., July 23, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of earthwork, lining, and structures, "A" canal and "A" laterals, Unit No. 1, Yuma Mesa Division, Gila Project*, Arizona. The work is situated south of Yuma, Arizona. The principal items of work and the estimated quantities involved are as follows: Schedule No. 1, earthwork, concrete lining, and structures for "A" canal, station 497+31.8 to station 569+59.75, back = 568+15.65 ahead; lateral A-8.9, station 93+64.55 to station 106+75.1; and lateral A-10.7E, station 0+00 to station 7+01.83—1,260 cubic yards of excavation for canal; 1,600 cubic yards of excavation for structures; Compacting 20 cubic yards of embankments; Trimming 690 square yards of foundation for concrete lining; 1,400 cubic yards of backfill; Compacting 600 cubic yards of backfill; 280 cubic yards of concrete in structures; 65 cubic yards of concrete in canal lining; Placing 25,000 pounds of reinforcement bars; Placing 1,800 pounds of reinforcement fabric; Placing 180 square feet of elastic filler material in joints; Placing 100 linear feet of rubber water stops in joints; Placing 400 linear feet of rubber seals in joints; Erecting 6 M feet b.m., of timber in structures; Installing 13,000 pounds of gates and gate hoists; and Installing 1,800 pounds of miscellaneous metal work. Schedule No. 2, earthwork, pneumatically applied motar lining and structures for "A" canal, station 568+15.65 to station 718+00.0; and laterals A-9.4, A-9.4-1.0; A-9.4-0.3, A-9.9W, A-10.5, A-10.7E-0.1, A-10.7W, A-10.7W-0.9, A-11.3, A-11.6, A-12.1, and A-12.6—38,000 cubic yards of excavation for canal; 2,800 cubic yards of excavation for structures; Compacting 1,600 cubic yards of embankments; Trimming 69,400 square yards of foundation for mortar lining; 3,200 cubic yards of backfill; Compacting 1,300 cubic yards of backfill; 600 cubic yards of concrete in structures; 34,700 square yards of pneumatically applied mortar in reinforced canal lining; 34,700 square yards of pneumatically applied mortar in unreinforced canal lining; Placing 47,000 pounds of reinforcement bars; Placing 45,000 pounds of reinforcement fabric; Placing 180 square feet of elastic filler material in joints; Placing 160 square feet of rubber water stops in joints; Placing 1,025 linear feet of rubber seals in joints; Erecting 13 M feet b.m. of timber in structures; Installing 10,700 pounds of gates and gate hoists; and Installing 6,200 pounds of miscellaneous metal work. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall be completed within two hundred and eighty (280) calendar days from the date of receipt of such notice. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid. Performance bond will be required in an amount not less than 50 percent of the estimated aggregate payments to be made under the contract. Payment bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Liquidated damages for delay for Schedule No. 1 will be twenty-five dollars ($25) per day; and for Schedule No. 2 will be one hundred dollars ($100) per day for each calendar day's delay. Partial payments will be made monthly. (See article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.25 per copy, not returnable. For particulars, address the Bureau of Reclamation, Yuma, Arizona; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(162)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., July 3, 1946. Sealed bids (Specifications No. 1431) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 2 p.m., August 16, 1946, and will at that hour be opened, for furnishing and delivering fob cars at the shipping point or fob cars at Casper, Wyoming, at the option of the bidder, three 13,333-kva, 6,800 delta to 66,400/115,000 Y-volt, 3-phase, 60-cycle, oil-immersed, self-cooled, outdoor-type power transformers, for Kortes Powerplant, Kortes Unit, Wyoming, Missouri Basin Project. The apparatus will be installed by the Government. The specifications do not contain a provision for liquidated damages for delay. No charge for copies of the specifications to prospective bona fide bidders; to others $0.75, not returnable. Copies of the specifications and bid forms may be obtained upon request from the Bureau of Reclamation, Denver 2, Colorado, or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(170)

(Continued on page 28)

U. S. Government

(Continued from page 27)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 20, 1946. Sealed bids (Specifications No. 1400) will be received at the office of the Bureau of Reclamation, Coulee Dam, Washington, until 10 a. m., July 25, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Potholes Dam, Columbia Basin Project*, Washington. The work is situated on Crab Creek about 15 miles west of Warden, Washington, the nearest railhead. The principal items of work and the estimated quantities involved are as follows: Diversion and care of river during construction and unwatering foundations; 600,000 cubic yards of excavation, stripping borrow pits; 380,000 cubic yards of excavation, common, for spillway; 480,000 cubic yards of excavation, rock, for spillway; 1,400 cubic yards of excavation, common, in open cut for outlet works; 5,000 cubic yards of excavation, rock, in open cut for outlet works; 2,600 cubic yards of excavation, all classes, in tunnel and shaft; Furnishing and installing 10,000 pounds of steel tunnel-liner plates; 535,000 cubic yards of excavation, common, for foundations of dam; 60,000 cubic yards of excavation, rock, for foundations of dam; 4,800 cubic yards of excavation, all classes, for grout caps in dam foundations; 2,000 cubic yards of excavation, common, for roadway; 2,300 cubic yards of excavation, rock, for roadway; 1,150,000 cubic yards of excavation, common, in borrow pit No. 1 and transportation to dam embankments; 3,500,000 cubic yards of excavation, common, in borrow pit No. 2 and transportation to dam embankments; 4,900,000 cubic yards of excavation, common, in borrow pit No. 3 and transportation to dam embankments; 5,000,000 cubic yards of earth fill in embankments; 3,600,000 cubic yards of sluiced sand and gravel fill in embankments; Tamping or puddling 50,000 cubic yards of earth fill; 180,000 cubic yards of rock surfacing on downstream slopes of embankments; 400,000 cubic yards of riprap on upstream slopes of embankments; 10,000 cubic yards of road surfacing; Drilling 250 linear feet of weepholes; Core drilling 1,000 linear feet of 5½-inch diameter holes not more than 30 feet deep; Drilling 15,000 linear feet of grout holes in stage between depths of 0 foot and 35 feet; Drilling 10,000 linear feet of grout holes in stage between depths of 35 feet and 60 feet; Drilling 2,500 linear feet of grout holes in stage between depths of 60 feet and 110 feet; Drilling 15,000 linear feet of grout holes with percussion drills; Placing 22,000 pounds of grout pipe and fittings; 40,000 cubic feet of pressure grouting; 7,500 cubic feet of pressure grouting with packers; Furnishing and handling 30,000 barrels of cement; 4,800 cubic yards of concrete in grout caps; 900 cubic yards of concrete in tunnel lining; 75 cubic yards of concrete in trashrack structure and transition; 260 cubic yards of concrete in shaft and gate chamber; 100 cubic yards of concrete in tunnel outlet structure; 60 cubic yards of concrete in gate-chamber plug; 750 cubic yards of concrete in spillway; 2,450 cubic yards of concrete in curb walls; Placing 250,000 pounds of reinforcement bars; Placing 90 linear feet of metal sealing strips; Construction of valve house, except concrete; Installing 1,600 pounds of hollow-jet valve; Installing 45,000 pounds of high-pressure gate and conduit linings; Installing 1,000 pounds of high-pressure-gate control piping; Installing 24,000 pounds of outlet pipe; Installing 11,000 pounds of trashrack metalwork; and Installing 9,200 pounds of miscellaneous metalwork. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall be completed within fourteen hundred (1,400) calendar days from the date of receipt of such notice. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be eight hundred dollars ($800) per day. Partial payments will be made monthly. (See article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.50 per copy, not returnable. For particulars, address the Bureau of Reclamation, Coulee Dam, Washington; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(161)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 28, 1946. Sealed bids (Specifications No. 1424) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 10 a.m., August 12, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Alamogordo-Hollywood 115-kilovolt transmission line, Rio Grande Project*, New Mexico-Texas. The work is situated in the south central part of the state of New Mexico. The transmission line to be constructed under these specifications will be 115,000-volt, 3-phase, 60-cycle, single-circuit, wood-pole, H-frame type transmission line approximately 39 miles long, and will extend from the proposed Alamogordo Substation near Alamogordo, New Mexico to the proposed Hollywood Substation near Hollywood, New Mexico. There will be one transposition barrel in the line. The transmission line has been designed for medium-loading conditions of one-quarter of an inch of ice and a wind pressure of 8 pounds per square foot at 15° F. The conductor for the line will be No. 4/0 Awg. aluminum cable, steel-reinforced. Each pole of each structure will be provided with a ground-wire. All structures for the transmission line will be constructed so that overhead ground-wires may be installed in the future, and two overhead ground-wires will be strung for one-half mile on each end of the line. Unless otherwise specified, all construction and clearances of the transmission line to be constructed under these specifications shall conform to the fifth edition of the National Electrical Safety Code issued by the United States Bureau of Standards. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. Materials to be furnished by the contractor will include but will not be restricted to the following: crossarms, guy strand, ground-wire, and all hardware not furnished by the Government. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and it is desired that all work be completed within two hundred and ninety (290) calendar days from the date of receipt of such notice. Bidders are required to state in the blank provided therefor in the bid form, a definite period of time within which the work will be completed: *Provided*, That no bid will be considered which states time for completion in excess of four hundred and seventy (470) calendar days. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000 the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000 the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be fifteen dollars ($15) per day for each calendar day's delay beyond the number of calendar days stated by the bidder in the bid form. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.00 per copy, not returnable. For particulars address the Bureau of Reclamation, U. S. Customhouse, El Paso, Texas; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(173)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 25, 1946. Sealed bids (Specifications No. 1408) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 2 p.m. July 22, 1946, and will at that hour be opened, for furnishing and delivering by contractor's trucks at the buildingsite at Davis Government Camp, located about 30 miles west of Kingman, Arizona, or by rail fob cars at the shipping point or fob cars at Kingman, Arizona, at the option of the bidder, 25 two-bedroom, type-2, prefabricated or precut residences for the Davis Government Camp, Davis Dam Project, Arizona-Nevada. The ½-inch fiberboard finish for interior walls, ceilings, and partitions will not be required to be furnished under these specifications. The residences will be erected by the Government. The specifications contain a provision for liquidated damages for delay. No charge for copies of the specifications to prospective bona fide bidders; to others $0.50, not returnable. Copies of the specifications and bid forms may be obtained upon request from the Bureau of Reclamation, Denver 2, Colorado, or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(172)

BIDS FOR CLEANING AND SNAGGING DITCH: War Dept., Corps of Engineers, 120 Wall St., New York 5, N. Y.—Sealed bids will be received in Room 601 until 2:00 P.M., 23 July 1946 and then publicly opened, for furnishing all plant, labor, materials and equipment and performing all work for the cleaning and snagging of Pequannock Township Ditch, Lincoln Park and Pequannock Township, Morris County, New Jersey; further information on application. (141)

(Continued on page 29)

U. S. Government

(Continued from page 28)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 20, 1946. Sealed bids (Specifications No. 1393) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 10 a.m., July 30, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of earthwork and structures for Aspen Creek Siphon; Marys Lake Powerplant, penstock, spillway, and switchyard; Marys Lake Reservoir Dikes and road relocation; Prospect Mountain Conduit; and Estes Powerplant, penstocks, and switchyard, Colorado-Big Thompson Project*, Colorado. The work is situated from 1 mile east to 4½ miles southwest of Estes Park, Colorado. The principal items of work and the estimated quantities involved are as follows: Schedule No. 1, Estes Powerplant and switchyard—26,975 cubic yards of excavation, common; 7,935 cubic yards of excavation, rock; 27,590 cubic yards of fill; Compacting 27,590 cubic yards of fill; Furnishing and placing 6,000 cubic yards of topsoil fill; 3,000 station cubic yards of overhaul; 3,500 square yards of dry-rock paving; 1,200 cubic yards of dumped riprap; Furnishing and placing 900 cubic yards of gravel surfacing on switchyard; Furnishing and placing 1,800 cubic yards of gravel or crushed rock for base course of road and parking-area surfacing; 108 M gallons of watering base course; Furnishing and applying 7,300 gallons of asphaltic material for prime coat; Furnishing and placing 800 cubic yards of gravel or crushed rock for surface course; Furnishing and applying 15,000 gallons of asphaltic material for surface course; Mixing, finishing, and rolling 10,100 square yards of surface course; Furnishing and applying 2,600 gallons of asphaltic material for seal coat; Furnishing and applying 27 cubic yards of coarse sand for seal coat; Constructing 350 linear feet of 6-inch diameter sewer-pipe drains with uncemented joints; Constructing 980 linear feet of 8-inch diameter sewer-pipe drains with cemented joints; Constructing 475 linear feet of 12-inch diameter sewer-pipe drains with cemented joints; Constructing 120 linear feet of 12-inch diameter corrugated-metal pipe culverts; Drilling 510 linear feet of holes for anchor bars and grouting bars in place; 3,800 cubic yards of concrete in powerplant substructure; 1,575 cubic yards of concrete in powerplant superstructure; 2,500 cubic yards of second-stage concrete in powerplant; 20 cubic yards of concrete in blockouts; Placing 2,300 square yards of bonded concrete floor finish; 775 cubic yards of concrete in switchyard foundation; 278 cubic yards of concrete in switchyard tunnel; 300 cubic yards of concrete in switchyard ducts; 650 cubic yards of concrete in retaining walls; 5,455 square feet of concrete in sidewalks; 1,180 linear feet of concrete in combined curbs and gutters; Placing 1,010,000 pounds of reinforcement bars; Placing 1,400 linear feet of metal sealing strips; Placing 350 square feet of joint filler; Constructing 440 linear feet of control joints; Insulating 160 intersections of reinforcement bars and electrical metal conduits; Placing 12,000 square feet of coal-tar-saturated felt roofing, complete with flashing; Placing 1,200 square feet of five-ply membrane waterproofing; Placing 560 square feet of two-ply membrane waterproofing; 1,550 square yards of dampproofing outside walls; Installing 1,680 square feet of glass-block panels; Installing 6,000 pounds of bulkhead gates; Installing 4,500 pounds of gate guides and latches for bulkhead gates; Installing 216,000 pounds of butterfly valves; Erecting 210,000 pounds of structural metal framework; Installing 190 track feet of rails on ties and ballast; Installing 29,200 pounds of rails in concrete; Installing 132,500 pounds of cranes; Installing 45,100 pounds of standard metal pipe, fittings, and valves less than 6 inches in size; Installing 70,000 pounds of standard metal pipe, fittings, and valves 6 inches or more in size; Installing 4,000 pounds of steel pipe railings; Installing 9,900 pounds of embedded metal frames for openings in floors and walls; Installing 26,900 pounds of metal gratings, floor plates, and cover plates; Installing 8,600 pounds of oil storage tanks; Installing 4,200 pounds of pumps; Installing 504 square feet of metal accordion doors; Installing 750 square feet of metal swinging doors; Installing 64 square feet of metal fire doors; Installing 160 square feet of metal-sash windows; Installing 1,500 pounds of metal louvers; Installing 3,500 pounds of metal inserts; Installing 21,400 pounds of miscellaneous metalwork; Installing 1,500 pounds of plumbing fixtures and appurtenant hardware; Installing 7,000 linear feet of embedded electrical metal conduit 1¼ inches or less in diameter; Installing 8,200 linear feet of embedded electrical metal conduit more than 1¼ inches and not larger than 3 inches in diameter; Installing 500 linear feet of embedded electrical metal conduit larger than 3 inches in diameter; Installing 25,000 linear feet of embedded electrical nonmetallic conduit; Installing 1,600 pounds of ground wires and ground rods; and Transporting 1,660 tons of freight of all kinds for the Government or its agents, other than the contractor, between the railroad station and the powerplant site. Schedule No. 2, Marys Lake Powerplant and switchyard—Unwatering foundation for powerplant; 2,075 cubic yards of excavation, common; 4,160 cubic yards of excavation, rock; 40 cubic yards of excavation, rock, for keys for switchyard foundations; 1,130 cubic yards of fill; Compacting 1,130 cubic yards of fill; 160 cubic yards of dumped riprap; Placing 70 cubic yards of gravel surfacing on switchyard; Constructing 80 linear feet of 6-inch diameter sewer-pipe drains with uncemented joints; Drilling 420 linear feet of holes for anchor bars and grouting bars in place; 1,400 cubic yards of concrete in powerplant substructure; 500 cubic yards of concrete in powerplant superstructure; 500 cubic yards of second-stage concrete in powerplant; 5 cubic yards of concrete in blockouts; 35 cubic yards of lightweight concrete fill on floor; Placing 900 square yards of bonded concrete floor finish; 70 cubic yards of concrete in switchyard foundations; 15 cubic yards of concrete in switchyard ducts; 500 cubic yards of concrete in retaining walls; Placing 357,000 pounds of reinforcement bars; Placing 100 linear feet of metal sealing strips; Constructing 120 linear feet of control joints; Insulating 60 intersections of reinforcement bars and electrical metal conduit; Placing 3,000 square feet of coal-tar-saturated felt roofing, complete with flashing; Placing 400 square feet of two-ply membrane waterproofing; Dampproofing 500 square yards of outside walls; Installing 300 square feet of glass-block panels; Installing 11,000 pounds of bulkhead gates; Installing 2,200 pounds of gate guides and latches for bulkhead gates; Erecting 25,000 pounds of structural metal framework; Installing 75 track feet of rails on ties and ballast; Installing 17,150 pounds of rails in concrete; Installing 89,200 pounds of crane and hoist; Installing 14,600 pounds of standard metal pipe, fittings, and valves less than 6 inches in size; Installing 24,000 pounds of standard metal pipe, fittings, and valves 6 inches or more in size; Installing 3,400 pounds of steel pipe railings; Installing 3,150 pounds of embedded metal frames for openings in floors and walls; Installing 10,800 pounds of metal gratings, floor plates, and cover plates; Installing 7,500 pounds of oil storage tanks; Installing 2,100 pounds of pumps; Installing 300 square feet of metal accordion doors; Installing 212 square feet of metal swinging doors; Installing 40 square feet of metal fire doors; Installing 600 pounds of metal louvers; Installing 1,600 pounds of metal inserts; Installing 4,500 pounds of miscellaneous metalwork; Installing 380 pounds of plumbing fixtures and appurtenant hardware; Installing 1,500 linear feet of embedded electrical metal conduit 1¼ inches or less in diameter; Installing 2,700 linear feet of embedded electrical metal conduit more than 1¼ inches and not larger than 3 inches in diameter; Installing 3,900 linear feet of embedded electrical nonmetallic conduit; Installing 1,600 pounds of ground wires and ground rods; and Transporting 400 tons of freight of all kinds for the Government or its agents, other than the contractor, between the railroad station and the powerplant site. Schedule No. 3, Marys Lake penstock gate structure, penstock, and spillway, Estes penstock gate structure and penstock—18,200 cubic yards of excavation, common; 51,700 cubic yards of excavation, rock; Hauling 50,000 cubic yards of excess rock excavation material from the Estes Powerplant penstock excavation; 28,050 cubic yards of backfill; Compacting 16,000 cubic yards of backfill; 3,000 cubic yards of backfill, earth and gravel; 60 cubic yards of riprap; 3,922 cubic yards of concrete in penstock gate structure substructure, spillway, and penstock, anchors, and walls; 245 cubic yards of concrete in penstock gate structure superstructure; Placing 579,600 pounds of reinforcement bars; Constructing 100 linear feet of control joints; Placing 1,900 square feet of coal-tar-saturated felt roofing, complete with flashing; Dampproofing 35 square yards of outside walls; Installing 55 square feet of glass-block panels; Installing 4,000 pounds of fixed-wheel gate; Installing 4,800 pounds of fixed-wheel gate frames and guides; Installing 3,000 pounds of fixed-wheel gate hydraulic hoist; Installing 216,000 pounds of high-pressure gate; Installing 4,000 pounds of high-pressure and fixed-wheel gate hydraulic control apparatus; Erecting 100 pounds of structural metal framework; Installing 3,200 pounds of rails in concrete; Installing 12,000 pounds of crane; Installing 1,300 pounds of standard metal pipe, fittings, and valves less than 6 inches in diameter; Installing 81,150 pounds of standard metal pipe, fittings, and valves 6 inches or more in diameter; Installing 41,900 pounds of trashrack metalwork; Installing 7,100,000 pounds of penstocks; Installing 195 square feet of metal swinging doors; Installing 255 square feet of metal-sash windows; Installing 20 pounds of metal louvers; Installing 80 linear feet of downspouts and leader boxes; and Installing 30,775 pounds of miscellaneous metalwork. Schedule No. 4, Aspen Creek Siphon—50,000 cubic yards of excavation, common, for structures; 85,000 cubic yards of excavation, rock, for structures; 102,000 cubic yards of backfill; Compacting 1,000 cubic yards of backfill; 11,100 cubic yards of concrete in structures; Placing 2,100,000 pounds of reinforcement bars; Placing 60 square feet of elastic filler in joints; Placing 53,400 pounds of metal water stops in joints; Installing 1,300 pounds of slide gate and hoist; and Installing 9,100 pounds of miscellaneous metalwork. Schedule No. 5, Prospect Mountain conduit and Marys Lake Reservoir Dike and road relocation—18,000 cubic yards of excavation, common, for structures; 38,000 cubic yards of excavation, rock, for structures; 3,000 cubic yards of excavation, common, for relocated road; 3,000 cubic yards of excavation, rock, for relocated road; 3,400 cubic yards of one-course road surfacing; 4,500 cubic yards of excavation, common, stripping dike foundations and borrow pits; 600 cubic yards of excavation, common, for cut-off trench; Constructing 54,700 cubic yards of dike embankments; 46,500 cubic yards of backfill; Compacting 2,200 cubic yards of backfill; 4,800 cubic yards of riprap; 7,270 cubic yards of concrete in structures; Placing 1,254,000 pounds of reinforcement bars; Placing 27,600 pounds of metal water stops in joints; Installing 23,000 pounds of fixed-wheel gate; Installing 21,500 pounds of fixed-wheel gate frames and guides; Installing 5,000 pounds of fixed-wheel gate hydraulic hoist; Installing 1,000 pounds of fixed-wheel gate hydraulic control apparatus; Installing 28,400 pounds of miscellaneous metalwork; Drilling 200 linear feet of grout holes; Placing 500 pounds of grout pipes and connections; and 200 cubic feet of pressure grouting. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and all work shall be completed under Schedules Nos. 1 and 2 within eight hundred and twenty-five (825) calendar days and all work under Schedules Nos. 3, 4, and 5 within five hundred and seventy-five (575) calendar days from the date of receipt of such notice. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is

(Continued on page 30)

U. S. Government

(Continued from page 29)

more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be two hundred dollars ($200) per day for each calendar day's delay in the completion of Schedules Nos. 1 and 2, and three hundred dollars ($300) per day for each calendar day's delay in the completion of Schedules Nos. 3, 4, and 5. Partial payments will be made monthly. (See article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $4.75 per copy, not returnable. For particulars, address the Bureau of Reclamation, Estes Park, Colorado; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner

(160)

FEDERAL WORKS AGENCY

Bureau of Community Facilities

Washington 25, D. C.

Sealed proposals will be received by Rufe B. Newman, Jr., Deputy Commissioner for Construction, Bureau of Community Facilities, Federal Works Agency, Room 2143 Federal Works Building, Washington, D. C., until 2:00 o'clock P. M. Eastern Standard Time, on August 27, 1946, for the construction of the following work at Charlotte Amalie, St. Thomas and Christiansted and Frederiksted, St. Croix, Virgin Islands, comprising approximately the following quantities:

PROJECT NO. 2, SANITATION AND FIRE PROTECTION FACILITIES, CHARLOTTE AMALIE, ST. THOMAS
Remove 13,000 Lin. ft. 4" to 8" existing C. I. pipe
Install 67,000 Lin. ft. 2¼" to 10" C. I. pipe
110 Fire hydrants
134 Gate-valves 2½" to 10"
3 Pumps—350 to 750 gpm and main line meters and appurtenances
1 New pumping station
Two 200,000 gal. reinforced concrete storage reservoirs
35,000 Lin. ft. sanitary sewers and laterals
335 Manholes
3,000 Cu. yds. rock excavation
50 Public toilets with necessary appurtenances

PROJECT NO. 3, INTERCEPTING SEWER, CHARLOTTE AMALIE, ST. THOMAS
8,000 Lin. ft. interceptor and outfall sewers
1,200 Lin. ft. submerged C. I. sewer
Sewage pumping station
Dual drive sewage pumping equipment
35 Manholes with necessary appurtenances

PROJECT NO. 19, SANITATION AND FIRE PROTECTION FACILITIES, CHRISTIANSTED, ST. CROIX
Remove 550 Lin. ft. 6" C. I. salt water pipe
Install 15,300 Lin. ft. 2¼" to 10" C. I. pipe and appurtenances
34 Fire hydrants
24" Gate-valves 2" to 8"
1—750 Gpm and 1—500 gpm salt water pump
Salt water pumping station
300,000 gallon concrete salt water reservoir
17,000 Lin. ft. 6" to 12" V. C. sewer pipe 0'-16' cut
1,600 Lin. ft. 6" to 8" C. I. pressure pipe
130 Manholes
Sewage pumping stations and equipment
Cut and replace 11,000 lin. ft. pavement

FREDERIKSTED, ST. CROIX
Remove 2,775 lin. ft. 3" to 6" C. I. pipe
Install 12,000 lin. ft. 2¼" to 10" C. I. pipe and appurtenances
16 Fire hydrants and 29 gate-valves 2" to 8"
1—500 gpm salt water pump
Alterations to existing salt water pump station
14,400 Lin. ft. 6" to 12" V. C. sewer pipe 0'-12' cut
63 Manholes
Sewage pumping station and equipment
Cut and replace 6,200 lin. ft. pavement

At which time and place the proposals will be publicly opened and read aloud. Bids received after closing time of bid opening will be returned unopened.

Plans and specifications and other proposed contract documents are open for public inspection at the District Engineer's Office, Old Marine Barracks, Charlotte Amalie, Virgin Islands; the District Engineer's Office, 501 Banco Popular Building, San Juan, Puerto Rico; Public Works Office, Christiansted, St. Croix, Virgin Islands, and Room 2143 Federal Works Building, Washington, D. C.

A set of such documents may be procured from R. L. Kenan and Associates, Consulting Engineers, Bell Building, Montgomery, Alabama, upon deposit of $50.00, all of which will be refunded to bona fide bidders upon the return of plans, in good condition, within seven days from date of bid opening.

To parties who procure plans and specifications upon payment of $50.00 and who do not submit a bid, $40.00 will be refunded *provided same are returned within seven days from date of bid opening.* No refund will be made for return after this time.

Each proposal must be accompanied by a bid security in an amount of not less than 5 per cent of the total bid.

The successful bidder will be required to furnish a performance bond in an amount equal to 100 per cent of the contract price, such bond to cover full performance of the contract and payment for labor and materials.

No proposal may be withdrawn after the scheduled closing time for receipt of bids for at least 30 days.

The Government reserves the right to reject any and all proposals and to waive informalities with respect thereto.

GEORGE H. FIELD
Commissioner

(158)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 27, 1946. Sealed bids (Specifications No. 1422) will be received at the office of the Bureau of Reclamation, Coulee Dam, Washington, until 10 a.m., August 20, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of check, main canal, station 1101+29.0 and earthwork concrete lining, and structures, station 0+25 to station 650+00, East Low Canal, Columbia Basin Project,* Washington. The work is situated in the vicinity of Adrian, Washington. The principal items of work and the estimated quantities involved are as follows: Schedule No. 1, check in main canal at station 1101+29; turnout and siphon, East Low Canal, station 0+25 to station 33+55, siphon, East Low Canal, station 56+75 to station 70+75; and check and siphon, East Low Canal, station 606+65 to station 615+46—111,000 cubic yards of excavation, common, for structures; 41,000 cubic yards of excavation, rock, for structures; 10,000 station cubic yards of overhaul; 96,000 cubic yards of backfill; Compacting 19,000 cubic yards of backfill; 27,100 cubic yards of concrete in structures; Furnishing and handling 50,500 barrels of cement; Placing 3,900,000 pounds of reinforcement bars; Placing 680 square feet of elastic filler in joints; Placing 520 linear feet of rubber waterstops; Placing 125,000 pounds of metal waterstops; Installing 1,700 pounds of blowoff valves and connections; Installing 154,000 pounds of gates and gate hoists; Installing 7,000 pounds of miscellaneous metalwork; Installing 1,100 linear feet of electrical metal conduits; and Installing 200 pounds of electrical conductors and ground-wires. Schedule No. 2, earthwork and structures, East Low Canal, station 33+55 to station 56+75; station 70+75 to station 606+65; and station 615+46 to station 650+00—1,557,000 cubic yards of excavation, common, for canal; 1,123,000 cubic yards of excavation, rock, for canal; 191,000 station cubic yards of overhaul; Compacting 344,000 cubic yards of embankment; 1,000 cubic yards of excavation, common, for drainage channels and dikes; 200 cubic yards of excavation, rock, for drainage channels and dikes; 7,800 cubic yards of excavation, common, for structures; 250 cubic yards of excavation, rock, for structures; Preparing 119,000 square yards of rock foundation for concrete lining; Trimming 366,000 square yards of earth foundation for concrete lining; 4,900 cubic yards of backfill; Compacting 3,200 cubic yards of backfill; 800 square yards of dry-rock paving; 470 cubic yards of concrete in structures; 30,800 cubic yards of concrete in reinforced canal lining; 30,800 cubic yards of concrete in unreinforced canal lining; Furnishing and handling 91,000 barrels of cement; Placing 43,000 pounds of reinforcement bars in structures; Placing 1,741,000 pounds of reinforcement bars in canal lining; Placing 290 square feet of elastic joint-filler material in joints; Erecting 123 M feet b.m. of timber in structures; Constructing 10,000 linear feet of underdrains with uncemented joints; Laying 2,000 linear feet of sewer-pipe with cemented joints; Laying 275 linear feet of 18-inch diameter concrete pipe; Laying 45 linear feet of 24-inch diameter concrete pipe; Installing 7,000 pounds of 18-inch diameter steel pipe; Installing 4,500 pounds of gates and gate hoists; and Installing 250 pounds of miscellaneous metalwork. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall be completed within eight hundred (800) calendar days from the date of receipt of such notice. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be three hundred dollars ($300) per day for Schedule No. 1 and five hundred dollars ($500) per day for Schedule No. 2. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.50 per copy, not returnable. For particulars, address the Bureau of Reclamation, Coulee Dam, Washington; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.

(171)

Additional Proposals on pages 31, 32, 33 & 34

U. S. Government
(Continued from page 30)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 19, 1946. Sealed bids (Specifications No. 1396) will be received at the office of the Bureau of Reclamation, Redding, California, until 10 a.m., July 29, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *installation of two main generators in Shasta Powerplant, Kennett Division, Central Valley Project*, California. The work consists of installing and testing two (2) 75,000-kva, unity-power-factor, 13,800-volt, 3-phase, 60-cycle, 138½-rpm, vertical-shaft, alternating-current generators; and furnishing and delivering one hundred and twelve (112) generator armature coils for use in assembling and installing the generators. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall complete all of the work under the schedule within the number of calendar days from the date of receipt of such notice, as follows: First generator, within two hundred (200) calendar days; and second generator, within four hundred (400) calendar days. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid. Performance bond will be required in an amount not less than 50 percent of the estimated aggregate payments to be made under the contract. Payment bond will be required in the sum of one-half of the total amount payable by the terms of the contract. The specifications contain a special provision for adjustments for changes in labor and material costs. Payments will be made as prescribed by Paragraph 15 of the specifications. No charge to prospective bidders for copies of the specifications and drawings; to others $0.75 per copy, not returnable. For particulars, address the Bureau of Reclamation, Redding, California; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.

(174)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 28, 1946. Sealed bids (Specifications No. 1415) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 10 a.m., August 26, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Phoenix-Tucson No. 2, 115-kilovolt transmission line, Davis Dam Project*, Arizona-Nevada. The work is situated in the southwest part of the state of Arizona. The transmission line to be constructed under these specifications will be 115,000-volt, 3-phase, 60-cycle, single-circuit, wood-pole transmission line, approximately 125 miles long. The line will extend from the switching station at Phoenix, Arizona in a southerly direction, parallel to an existing line, to a point about 7½ miles from Phoenix where, in order to eliminate a crossover, one span of the old line will be broken and connection made between the new line and the south end of the break in the old line, and the new line will be continued from a connection with the north end of the break in the old line. From this connection, the new line will continue in a southerly direction to a point about 3 miles west of the substation at Tucson, Arizona, or approximately 122 miles from Phoenix. The above portion of the line will be of the H-frame type of construction, and from this point to the substation at Tucson, Arizona, for approximately 3 miles, the transmission line will be of the single-pole wishbone-type of construction. There will be four transposition barrels in the transmission line. Two air-break switch structures will be constructed for future taps to the transmission line, one just south of the Electric District No. 3 Maricopa Substation, and one just north of the Electric District No. 4 Eloy Substation. The conductors for the line will be 336,400-circular mil, steel-reinforced, aluminum cable. Two galvanized, high-strength, steel-strand, overhead ground-wires, three-eighths of an inch in diameter will be installed on the portion of the line using H-frame structures. One overhead ground-wire will be installed on the portion of the line using H-frame structures. One overhead ground-wire will be installed on the portion of the line using single-pole wishbone-type structures. Each pole of each structure will be

U. S. Government

provided with a galvanized steel-strand ground-wire. The transmission line has been designed for light-loading conditions of no ice and a wind pressure of 12 pounds per square foot at 30° F. Unless otherwise specified, all construction and clearances of the transmission line to be constructed under these specifications shall conform to the fifth edition of the National Electrical Safety Code issued by the United States Bureau of Standards. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the Government are listed in the specifications, and materials to be furnished by the contractor will include but will not be restricted to the following: guy strand, ground-wire, air-break switches, insulators, and all hardware not furnished by the Government. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and it is desired that all of the work be completed within four hundred and sixty (460) calendar days after date of receipt by the contractor of notice to proceed. Bidders are required to state, in the blank provided therefor in the bid form, a definite period of time within which the work will be completed: *Provided*, That no bid will be considered which states time for completion in excess of six hundred and forty (640) calendar days after date of receipt by the contractor of notice to proceed. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $200,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be twenty-five dollars ($25) per day for each calendar day's delay beyond the number of calendar days stated by the bidder in the bid form. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.25 per copy, not returnable. For particulars, address the Bureau of Reclamation, Parker Dam, California; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.

(175)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 27, 1946. Sealed bids (Specifications No. 1413) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 10 a.m., August 19, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Black Canyon—"C" line canal pumping plant, 69-kilovolt transmission line, Payette Division, Boise Project*, Idaho. The work is situated in the southwest part of the state of Idaho. The transmission line to be constructed under these specifications will be a 69,000-volt, 3-phase, single-circuit, 60-cycle, single wood pole, suspension-insulator-type transmission line approximately 17

U. S. Government

miles long. The transmission line will extend from the Black Canyon Powerplant, approximately 5 miles northeast of Emmett, Idaho, to the "C" line canal pumping plant, approximately 10 miles west of Emmett, Idaho. The transmission line has been designed for medium-loading conditions of one-quarter of an inch of ice and a wind pressure of 8 pounds per square foot at 15° F. The conductors for the line will be No. 2/0 Awg. aluminum cable, steel-reinforced. Each pole of each structure shall be provided with a ground-wire, and one overhead ground-wire will be strung for one-half mile from each end of the line. Unless otherwise specified, all construction and clearances of the transmission line to be constructed under these specifications shall conform to the fifth edition of the National Electrical Safety Code issued by the United States Bureau of Standards. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor, as indicated in the specifications, will include but will not be restricted to the following: crossarms, guy strand, ground-wire, insulators, and all hardware not furnished by the Government. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and it is desired that all of the work be completed within two hundred and fifty (250) calendar days from the date of receipt by the contractor of notice to proceed. Bidders are required to state, in the blank provided therefor in the bid form, a definite period of time within which the work will be completed: *Provided*, That no bid will be considered which specifies time for completion in excess of four hundred and thirty (430) calendar days. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be fifteen dollars ($15) per day for each calendar day's delay beyond the number of calendar days stated by the bidder in the bid form. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.50 per copy, not returnable. For particulars, address the Bureau of Reclamation, P. O. Box 2298, 214 Broadway, Boise, Idaho; Denver 2, Colorado; or Washington 25, D. C.

(177)

(Continued on page 32)

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U. S. Government
(Continued from page 31)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 24, 1946. Sealed bids (Specifications No. 1401) will be received at the office of the Bureau of Reclamation, Coulee Dam, Washington, until 10 a.m., August 7, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Long Lake Dam, Columbia Basin Project*, Washington. The work is situated in the Long Lake Basin about 2½ miles northeast of Stratford, Washington. The principal items of work and the estimated quantities involved are as follows: 90,000 cubic yards of excavation, stripping borrow-pits; 195,000 cubic yards of excavation, all classes, in emergency spillway channel; 140,000 cubic yards of excavation, all classes, for foundation of dam; 1,300 cubic yards of excavation, all classes, for footings of embankment cutoff wall and for spillway grade wall; 9,000 cubic yards of excavation, common, in open cut for outlet works; 3,000 cubic yards of excavation, rock, in open cut for outlet works; 2,500 cubic yards of excavation, all classes, in tunnel and shaft; Furnishing and placing 12,000 pounds of steel-tunnel liner plates; Loading and hauling 30,000 cubic yards of stockpiled materials from canal excavation; 270,000 cubic yards of excavation, common, in borrow-pit No. 1 and transportation to dam embankment; 560,000 cubic yards of excavation, common, in borrow-pit No. 2 and transportation to dam embankment; 365,000 cubic yards of excavation, common, in borrow-pit No. 3 and transportation to dam embankment; 165,000 cubic yards of excavation, common, in borrow-pit No. 4 and transportation to dam embankment; 900,000 cubic yards of earth fill in embankment; 350,000 cubic yards of sluiced sand, gravel, and cobble fill; Tamping or puddling 5,000 cubic yards of earth fill; 230,000 cubic yards of rock fill in embankment; Constructing 1,000 linear feet of 8-inch diameter sewerpipe drains with uncemented joints, embedded in gravel; Constructing 300 linear feet of 12-inch diameter sewerpipe drains with uncemented joints, embedded in gravel; Drilling 360 linear feet of weepholes; Drilling 4,000 linear feet of grout holes in stage between depth of 0 feet and 35 feet; Drilling 3,000 linear feet of grout holes in stage between depths of 35 feet and 60 feet; Drilling 1,000 linear feet of grout holes in stage between depths of 60 feet and 110 feet; Drilling 3,000 linear feet of grout holes with percussion drills; Placing 6,000 pounds of grout pipe and fittings; 8,000 cubic feet of pressure grouting; 4,000 cubic feet of pressure grouting with packers; Furnishing and handling 9,000 barrels of cement; 1,200 cubic yards of concrete in footing of embankment cutoff wall; 750 cubic yards of concrete in embankment cutoff wall, except footing; 150 cubic yards of concrete in spillway grade wall; 850 cubic yards of concrete in tunnel lining; 175 cubic yards of concrete in shaft and gate-chamber; 75 cubic yards of concrete in trashrack structure and transition; 300 cubic yards of concrete in curb walls on embankment; Placing 116,000 pounds of reinforcement bars; Installing 40,000 pounds of high-presure gate and conduit linings; Installing 3,300 pounds of high-pressure-gate control piping; Installing 11,000 pounds of trashrack metalwork; and Installing 5,400 pounds of miscellaneous metalwork. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall be completed within eight hundred (800) calendar days from the date of receipt of such notice. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shal be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be three hundred dollars ($300) per day for each calendar day's delay. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.50 per copy, not returnable. For particulars, address the Bureau of Reclamation, Coulee Dam, Washington; Denver 2, Colorado; or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(184)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 26, 1946. Sealed bids (Specifications No. 1419) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 2 p.m., August 7, 1946, and will at that hour be opened, for furnishing and delivering fob cars at the shipping point or fob cars at Odair, Washington, at the option of the bidder, crest railings, including railing anchors, lenses, and lighting fixtures and wiring for Grand Coulee Dam, Columbia Basin Project, Washington. The crest railings, except the railing anchors, shall be fabricated from aluminum, nickel-copper alloy (monel metal), or stainless steel. Lamps for lighting fixtures will be furnished by the Government. The crest railings will be erected by the Government. The specifications contain a provision for liquidated damages for delay. No charge for copies of the specifications to prospective bona fide bidders; to others $1.00, not returnable. Copies of the specifications and bid forms may be obtained upon request from the Bureau of Reclamation, Denver 2, Colorado, or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(180)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 28, 1946. Sealed bids (Specifications No. 1417) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 2 p.m., August 1, 1946, and will at that hour be opened, for furnishing and delivering fob cars at the shipping point or fob cars at Odair, Washington, at the option of the bidder, two 100-ton, single-trolley, motor-operated, overhead traveling cranes, one 60-ton, single-trolley, motor-operated, overhead traveling crane, and one lifting beam for the Grand Coulee Pumping Plant, Columbia Basin Project, Washington. The cranes will be installed by the Government. The specifications do not contain a provision for liquidated damages for delay. No charge for copies of the specifications to prospective bona fide bidders; to others $2.00, not returnable. Copies of the specifications and bid forms may be obtained upon request from the Bureau of Reclamation, Denver 2, Colorado, or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(179)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 17, 1946. Sealed bids (Specifications No. 1397) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 10 a.m., July 25, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Davis Dam-Kingman, 69-kilovolt transmission line, Davis Dam Project*, Arizona-Nevada. The general location of the transmission line is in the western part of the state of Arizona. The transmission line to be constructed under these specifications will be a 69-kilovolt, 3-phase, single-circuit, 60-cycle, wood-pole, H-frame type transmission line, approximately 29 miles long. The transmission line will extend from the Davis Dam construction substation to a point approximately 3½ miles northwest of Kingman, Arizona, where it will be connected to an existing 69-kilovolt transmission line. There will be one complete transposition barrel in the line. The transmission line has been designed for light-loading conditions of no ice and a wind pressure of 12 pounds per square foot at 30° f. The conductor for the line will be No. 2/0 A.W.G. aluminum cable, steel reinforced. Each pole of each structure will be provided with a ground wire. Two overhead ground wires will be strung for one-half mile from the Davis Dam construction substation. One disconnecting switch will be installed in the line near the point where the line is connected to the existing transmission line near Kingman, Arizona. Unless otherwise specified, all construction and clearances of the transmission line to be constructed under these specifications shall conform to the fifth edition of the National Electrical Safety Code, issued by the United States Bureau of Standards. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be apart of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and it is desired that all of the work be completed within two hundred and fifty (250) calendar days from the date of receipt by the contractor of such notice. Guarantee will be required with each bid in an ammount not less than 10 percent of the amount of the bid. Performance bond will be required in an amount not less than 50 percent of the estimated aggregate payments to be made under the contract. Payment bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Liquidated damages for delay will be twenty-five dollars ($25) per day. Partial payments will be made monthly. (See article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.75 per copy, not returnable. For particulars, address the Bureau of Reclamation, Kingman, Arizona; Denver 2, Colorado; or Washington 25, D. C. (181)

Michael W. Straus,
Commissioner.

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation Washington, D. C., June 19, 1946. Sealed bids (Specifications No. 1403) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 2 p.m., July 22, 1946, and will at that hour be opened for furnishing and delivering fob cars at the shipping point or fob cars at Redding, California, at the option of the bidder, pipe, fittings, and valves for Keswick Powerplant, Central Valley Project, California. The materials will be installed by the Government. The specifications do not contain a provision for liquidated damages for delay. No charge for copies of the specifications to prospective bona fide bidders; to others $3.00 not returnable. Copies of the specifications and bid forms may be obtained upon request from the Bureau of Reclamation, Denver 2, Colorado, or Washington 25, D. C.

Michael W. Straus,
Commissioner.
(163)

U. S. ENGINEER OFFICE, CHIMES BUILDING, SYRACUSE 2, N. Y. Sealed bids will be received here until 11 A.M., E.D.S.T., 5 August 1946, and then opened, for furnishing plant, labor, materials and equipment for construction of the Flood Protection Project, (Chenango River—Clearing and Snagging), Port Dickinson, Broome County, New York. Three copies of specifications including plans and bidding papers, will be furnished, without cost, to prospective bidders upon application to The District Engineer, U. S. Engineer Office, Chimes Building, Syracuse 2, N. Y.

(183)

(Continued on page 33)

U. S. Government
(Continued from page 32)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 27, 1946. Sealed bids (Specifications No. 1411) will be received at the office of the Bureau of Reclamation, Denver, Colorado, until 10 a.m., August 15, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of the Glendive-Miles City, Fort Peck-Williston, and Williston-Garrison Dam 115-kilovolt transmission lines in Montana and North Dakota. The Glendive-Miles City and Fort Peck-Williston lines are part of the Fort Peck Project and the Williston-Garrison Dam line is part of the Power Transmission Lines Unit, Missouri Basin Project.* The work is situated in the eastern part of Montana and the western part of North Dakota. The transmission lines to be constructed under these specifications will be 115,000-volt, 3-phase, single-circuit, 60-cycle, wood-pole, H-frame type transmission lines. (a) Glendive-Miles City transmission line.—The transmission line to be constructed under one of Schedules Nos. 1, 2, or 3, will be approximately 78 miles long following a course generally parallel to U. S. Highway No. 10. The transmission line will be connected to the existing 115,000-volt Fort Peck-Glendive transmission line at a point approximately one-half mile west of the Yellowstone River near Glendive, Montana, and will extend to the proposed Miles City Substation near Miles City, Montana. Two overhead ground-wires will be installed for approximately one-half mile from the proposed Miles City Substation and all structures for the remaining portion of the line will be constructed so that two overhead ground-wires may be installed for the entire length of the line in the future. One disconnecting switch will be installed in the line near the point where the line is connected to the existing Fort Peck-Glendive transmission line and one disconnecting switch will be installed in the line near Terry, Montana. There will be two transposition barrels in the line. The transmission line has been designed for medium-loading conditions of one-quarter of an inch of ice and a wind pressure of 8 pounds per square foot at 15° F. (b) Fort Peck-Williston transmission line.—The transmission line to be constructed under one of Schedules Nos. 4, 5, or 6, will be approximately 139 miles long and will extend from the Fort Peck Powerplant, Montana, to a proposed Williston Substation near Williston, North Dakota, following a course generally parallel to and north of U. S. Highway No. 2. Two overhead ground-wires will be installed for the entire length of the transmission line. One disconnecting switch will be installed in the line near Culbertson, Montana. There will be three transposition barrels in the line. The transmission line has been designed for medium-loading conditions of one-quarter inch of ice and a wind pressure of 8 pounds per square foot at 15° F. from the Fort Peck Powerplant to a point near Bainville, Montana, close to the Montana-North Dakota state line; and the balance of the line from Bainville, Montana, to Williston, North Dakota, has been designed for heavy-loading conditions of one-half inch of ice and a wind pressure of 8 pounds per square foot at 0° F. (c) Williston-Garrison transmission line.—The transmission line to be constructed under one of Schedules Nos. 7, 8, or 9, will be approximately 179 miles long and will extend from the proposed Williston Substation near Williston, North Dakota, to the Garrison Dam construction substation near the Garrison Damsite on the Missouri River approximately 23 miles northeast of Hazen, North Dakota. From Williston to Grassy Butte the line will follow a course generally parallel to U. S. Highway No. 85 and from Grassy Butte to Beulah will follow State Highway No. 25. Two overhead ground-wires will be installed for the entire length of the transmission line. Two disconnecting switches will be installed in the line, one near Grassy Butte, North Dakota, and the other near Beulah, North Dakota. There will be three transposition barrels in the line. The transmission line will be connected to a substation at Beulah, North Dakota. The line has been designed for heavy-loading conditions of one-half inch of ice and a wind pressure of 8 pounds per square foot at 0° F. The conductor for the transmission lines will be either 250,000-circular mil hollow copper conductor; 397,500-circular mil steel-reinforced aluminum conductor; or 250,000-circular mil copperweld-copper conductor. Each pole of each structure on each line will be provided with a ground-wire. Unless otherwise specified, all construction and clearances of the transmission lines to be constructed under these specifications shall conform to the fifth edition of the National Electrical Safety Code issued by the United States Bureau of Standards. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor will include but will not be restricted to the following: conductor, poles, crossarms, guy strand, ground-wire, insulators, and all hardware not furnished by the Government as listed in the specifications. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and it is desired that the work be completed within the following number of calendar days after date of receipt by the contractor of notice to proceed: Schedules Nos. 1, 2, or 3—Three hundred and ninety (390) calendar days; Schedules Nos. 4, 5, or 6—Five hundred and thirty (530) calendar days; and Schedules Nos. 7, 8, or 9—Section of line from Beulah, North Dakota to the Garrison Dam construction substation, one hundred and twenty (120) calendar days; and the remainder of the line, five hundred and ninety (590) calendar days. Bidders are required to state, in the blank provided therefor in the bid form, definite periods of time within which the work will be completed for each of the schedules or portions thereof as listed above: *Provided*, That no bid will be considered which states time for completion in excess of the following: Schedules Nos. 1, 2, or 3—Five hundred and seventy (570) calendar days; Schedules Nos. 4, 5, or 6—Seven hundred and ten (710) calendar days; and Schedules Nos. 7, 8, or 9—Section of line from Beulah, North Dakota to the Garrison Dam construction substation, three hundred (300) calendar days; remaining section of line, seven hundred and seventy (770) calendar days. Delays due to the operation of the national priorities system becoming effective subsequent to the date of the bid will be considered to be delays due to unforeseeable causes and beyond the control of the contractor. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be twenty-five dollars ($25) per day for each calendar day's delay beyond the number of calendar days stated by the bidder in the bid form. Partial payments will be made monthly. (See article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $2.00 per copy, not returnable. For particulars, address the Bureau of Reclamation, P. O. Box 1345, Fort Peck, Montana; Denver 2, Colorado; or Washington 25, D. C. (178)

Michael W. Straus,
Commissioner.

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation, Washington, D. C., June 27, 1946. Sealed bids (Specifications No. 1409) will be received at the office of the Bureau of Reclamation, Bismarck, North Dakota, until 10 a.m., August 22, 1946, and then publicly opened, for furnishing labor and materials and performing all work for the *construction of Heart Butte Dam, Heart River Unit, North Dakota, Missouri Basin Project.* The work is situated on the Heart River about 18 miles south of Glen Ullin, North Dakota. The principal items of work and the estimated quantities involved are as follows: Diversion and care of river during construction and unwatering foundations; 167,000 cubic yards of excavation, stripping borrow areas; 442,000 cubic yards of excavation, all classes, in open cut for outlet works; 300,000 cubic yards of excavation, all classes, for spillway; 240,000 cubic yards of excavation, all classes, for foundation of dam; 1,700,000 cubic yards of excavation, earth-fill material, in borrow areas and transportation to dam embankment; 71,000 cubic yards of excavation, sand, and gravel in gravel borrow areas and transportation to dam embankment; 38,000 cubic yards of excavation, rock-fill material, in borrow areas and transportation to dam embankment; Securing 55,000 cubic yards of riprap from source A and transportation for placement; Securing 10,000 cubic yards of riprap from source B and transportation for placement; Securing 10,000 cubic yards of riprap from source C and transportation for placement; Driving 30,000 pounds of steel sheetpiling; 1,450,000 cubic yards of earth fill in embankment; Tamping or puddling 16,000 cubic yards of earth fill; 57,000 cubic yards of sand and gravel blanket on upstream slope of dam embankment; 53,000 cubic yards of rock fill on downstream slope of embankment; 34,000 cubic yards of riprap on upstream slope of embankment; 41,000 cubic yards of dumped riprap; 14,000 cubic yards of sand and gravel filter blanket under downstream embankment fill; 53,000 cubic yards of backfill; 1,100 cubic yards of filter blanket under spillway floor; 15 cubic yards of continuous gravel drain back of spillway wall; Constructing 2,000 linear feet of 4-inch diameter sewerpipe drains with uncemented joints embedded in gravel; Constructing 1,200 linear feet of 6-inch diameter sewerpipe drains with uncemented joints embedded in gravel; Constructing 750 linear feet of 8-inch diameter sewerpipe drains with uncemented joints embedded in gravel; Constructing 550 linear feet of 12-inch diameter sewerpipe drains with uncemented joints embedded in gravel; Laying 180 linear feet of 6-inch diameter sewerpipe drains with cemented joints; Furnishing and handling 28,000 barrels of cement; 470 cubic yards of concrete in trashrack structure; 3,800 cubic yards of concrete in outlet conduit; 400 cubic yards of concrete in gate-chamber; 150 cubic yards of concrete in control house substructure, first stage; 200 cubic yards of concrete in control house substructure, second stage; 35 cubic yards of concrete in control house superstructure; 670 cubic yards of concrete in outlet works stilling basin; 160 cubic yards of concrete in plugs; 8,000 cubic yards of concrete in spillway conduit; 2,540 cubic yards of concrete in spillway floors and cutoffs; 2,600 cubic yards of concrete in spillway channel, except floors; 600 cubic yards of concrete in parapet; Placing 2,520,000 pounds of reinforcement bars; Placing 630 linear feet of metal sealing strips; Placing 310 linear feet of rubber waterstops; Placing 7,200 square feet of joint filler; Dampproofing 2,400 square yards of concrete surfaces; Construction of control house except concrete; Erecting 1,850 linear feet of cable guardrail; Installing 83,900 pounds of high-pressure gates and cast-metal conduit liners; Installing 3,500 pounds of control apparatus and piping for high-pressure gates; Installing 110,000 pounds of outlet pipe; Installing 2,600 pounds of ventilating system; Installing 1,100 pounds of standard pipe, fittings, and valves, less than 6 inches in diameter; Installing 12,700 pounds of standard pipe, fittings, and valves 6 inches and larger in diameter; Installing 30,000 pounds of trashrack metalwork; Installing 2,600 pounds of miscellaneous metalwork; Installing 12,600 pounds of pipe handrail; Installing 760 linear feet of electrical metal conduits; Installing 140 pounds of electrical conductors and ground-wires; and Installing 1,700 pounds of electrical apparatus. This invitation for bids does not cover the purchase of materials which are to be furnished by the Government. Materials to be furnished by the contractor and those furnished by the Government are described in the specifications which will be a part of the contract. The work shall be commenced within thirty (30) calendar days after date of receipt of notice to proceed and shall be completed within one thousand

(Continued on page 34)

U. S. Government

(Continued from page 33)

one hundred and fifty (1,150) calendar days from the date of receipt of such notice. Guarantee will be required with each bid in an amount not less than 10 percent of the amount of the bid: *Provided*, That guarantee in excess of $2,000,000 will not be required. Where the total amount payable by the terms of the contract is not more than $1,000,000, a performance bond will be required in the sum of one-half of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $1,000,000 and not more than $5,000,000, the performance bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $5,000,000 and not more than $10,000,000, the performance bond shall be in the sum of 30 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $10,000,000 and not more than $25,000,000, the performance bond shall be in the sum of 20 percent of the total amount payable by the terms of the contract. Where the total amount payable by the terms of the contract is more than $25,000,000, the performance bond shall be in the sum of $5,000,000. Whenever the total amount payable by the terms of the contract shall be more than $2,000 but not more than $1,000,000, the payment bond shall be in the sum of one-half of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $1,000,000 and not more than $5,000,000, the payment bond shall be in the sum of 40 percent of the total amount payable by the terms of the contract. Whenever the total amount payable by the terms of the contract shall be more than $5,000,000, the payment bond shall be in the sum of $2,500,000. Liquidated damages for delay will be four hundred dollars ($400) per day. Partial payments will be made monthly. (See Article 16 of the contract.) No charge to prospective bidders for copies of the specifications and drawings; to others $3.00 per copy, not returnable. For particulars, address the Bureau of Reclamation, P. O. Box 328, First National Bank Building, Bismarck, North Dakota; Denver 2, Colorado; or Washington 25, D. C. (182)

Michael W. Straus,
Commissioner.

OFFICIAL PROPOSALS

Bids: July 24 (157)

State Highway Work

STATE DEPARTMENT OF PUBLIC WORKS BUREAU OF CONTRACTS & ACCOUNTS
ALBANY, N. Y.

Sealed Proposals will be received by Henry A. Cohen, Director, Bureau of Contracts & Accounts, 14th Floor, The Governor Alfred E. Smith State Office Building, Albany, N. Y., until

Ten-Thirty o'clock A. M., advanced standard time, which is nine-thirty o'clock A. M., eastern standard time, on

WEDNESDAY, JULY 24, 1946, for the construction and reconstruction of highway projects in the following counties:

County	Deposit for plans	Bid deposit	Type	Miles	Dept. estimate
CONSTRUCTION AND RECONSTRUCTION					
*Cattaraugus	$20	$65,000	Conc. 9"–52' Wdt. Conc. Box 24' I-Beam 2 spans @ 55' each	5.24	$1,216,000
*Cattaraugus	5	2,500	Asphalt Conc. Opt. 40'–50' Wid	0.62	45,000
*Chenango and Otsego	5	9,000	I-Beam, 3 spans 65' each Conc. 8" Thk., 22' Wid.	0.73	167,000
Chenango and Otsego	10	35,000	Conc. 8" Thk. 22'–48' Wdt.	4.30	584,000
Delaware	20	85,000	Conc. Slab, 33' span: Conc. Slab 29' span: Rigid Frame 22½' span; Rigid Frame, 20' span; Bit. Mac. Machine Mix	12.86	1,420,000
Essex	5	4,000	Bit. Mac. Pen. Method	0.75	77,000
Greene	10	18,000	Twin Conc. Box 44½' span; Conc. 8' Thk. 24'–40' Wid.	1.93	336,000
Oneida	10	19,000	Conc. Slab. 27'–06'; Bit. Mac. M. M. Opt.; Conc. 8' Thk. 24' Wid.	3.48	355,000
Oneida	10	17,000	Fdt. Course, ROB Gravel	3.96	300,000
Ontario	5	14,000	Asph. Conc. Opt. M. M. Two Course	0.57	237,000

* These projects involve the use of Alpha Composite construction, which is patented and the royalty is: Chenango and Otsego $237.44; Cattaraugus $349.60

Maps, plans, specifications, and estimates may be obtained at the office of the Department of Public Works, Bureau of Contracts & Accounts, Albany, N. Y., and at the office of the District Engineers in whose district the roads are located. The names and addresses of the District Engineers will be furnished on request and may be seen at the office of the State Department of Public Works, State Office Building, Room 898, Worth & Center Streets, New York City.

The deposit for Plans and Proposal Forms for each contract containing 1 to 15 sheets is $5.00; 16 to 30 sheets, $10.00; over 30 sheets, $20.00. A refund will be made in full to bidders for return of one set, in good condition, within 30 days of award, or rejection of bids; refund for all other sets in good condition, similar period, will be 50% of deposit.

Special attention of bidders is called to "General Information for Bidders" in the proposal, specifications, and contract agreement, and to the special provisions applying to projects financed with federal funds.

Proposal for each contract must be submitted in a separate sealed envelope with the name and number of the contract plainly endorsed on the outside of the envelope. Each proposal must be accompanied by cash, draft or certified check payable to the order of "State of New York, Commissioner of Taxation & Finance" for the sum as specified in the advertisement and the proposal. The retention and disposal of the bidding check, the execution of the contract and bonds shall conform to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

When optional types are permitted on contracts with federal funds, bidders must state in the space provided in the proposal the exact designation of the optional type upon which the proposal is predicated.

Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskilled Labor
Cattaraugus	$0.85	$0.85	$0.85
Chenango	0.82½	0.82½	0.82½
Delaware	0.80	0.80	0.80
Greene	0.85	0.85	0.85
Oneida	0.95	0.95	0.95
Ontario	0.80	0.80	0.80
Otsego	0.82½	0.82½	0.82½
Essex	0.85	0.85	0.85

UNLESS SHOWN OTHERWISE IN THE ITEMIZED PROPOSAL FOR EACH PROJECT.

The right is reserved to reject any or all bids.

CHAS. H. SELLS
SUPT. OF PUBLIC WORKS

Bids: July 24 (159)

Soil Explorations and Foundation Investigations

(Chap. 404, Laws 1944)
(Chap. 542, Laws 1939)

NOTICE TO BIDDERS

Sealed proposals for Soil Explorations and Foundation Investigations for the following Bridges over the Barge Canal, Monroe County:
Bridge E-170, Long Pond Road
Bridge E-172, Manitou Road
in accordance with Specification No. *S. M. No. 7* and accompanying drawings will be received by Henry A. Cohen, Director, Bureau of Contracts and Accounts, Department of Public Works, The Governor Alfred E. Smith State Office Building, Albany, N. Y. until 1:00 o'clock P. M. (Eastern Standard Time) on Wednesday, July 24 1946 when they will be publicly opened and read.

Each proposal must be made upon the form and submitted in the envelope provided therefore and shall be accompanied by a certified check made payable to the State of New York, Commissioner of Taxation and Finance, of 5% of the amount of the bid as a guaranty that the bidder will enter into the contract if it be awarded to him. The specification number must be written on the front of the envelope. The blank spaces in the proposal must be filled in, and no change shall be made in the phraseology of the proposal. Proposals that carry any omissions, erasures, alterations or additions may be rejected as informal. Successful bidders will be required to give a bond conditioned for the faithful performance of the contract and a separate bond for the payment of laborers and materialmen, each bond in the sum of 100% of the amount of the contract. Corporations submitting proposals shall be authorized to do business in the State of New York.

The envelope in which the proposal is submitted must plainly indicate on the outside thereof whether the person, firm or corporation submitting the proposal is a foreign contractor, and pursuant to the provisions of Chapter 63, Laws of 1936, no proposal shall be received or considered or contract awarded or let to a foreign contractor for any construction, improvement or reconstruction, unless the contractor shall furnish to the superintendent of public works satisfactory proof that any taxes due and payable by such contractor under the provisions of Articles 9A and 16 of the Tax Law prior to the submission of the proposal for the performance of the work were paid prior to such submission.

The certificate of the state tax commission to the effect that all such taxes have been paid by the contractor shall be conclusive proof of the payment of such taxes

The term "Foreign Contractor" as used in this subdivision means, in the case of an individual, a person who is a legal resident of another state or foreign country, in the case of a firm or co-partnership, one having one or more partners who is a legal resident of another state or a foreign country, and in the case of a corporation, one having its principal place of business in another state or foreign country.

The certificate of the State Tax Commission, to the effect that all such taxes have been paid by the contractor, shall be placed on file with the Superintendent of Public Works, in his office, Governor Alfred E. Smith State Office Building, Albany, N. Y., prior to the receipt of any proposal for the work.

Drawings and specifications may be examined free of charge at the following offices:

Director, Bureau of Contracts & Accounts, Governor Alfred E. Smith State Office Building, Albany, N. Y.
New York State Dept. of Public Works, 80 Centre Street, New York, N. Y.
P. J. Lamb, District Engineer, 353 Broadway, Albany (1), N. Y.
Lacy Ketchum, District Engineer, 109 N. Genesee St., Utica (1), N. Y.
William Robinson, District Engineer, Weigh Lock Bldg., Syracuse (1), N. Y.
Elmer C. Lawton, District Engineer, Barge Canal Terminal, Rochester (1), N. Y.
Chas. R. Waters, District Engineer, State Office Bldg., 65 Court St., Buffalo (2), N. Y.
H. F. Brumm, District Engineer, 30 West Main St., Hornell, N. Y.
Roy F. Hall, District Engineer, 444 Van Duzee St., Watertown, N. Y.
James S. Bixby, District Engineer, Pleasant Valley Road, P. O. Box 551, Poughkeepsie, N. Y.
Frank W. Donovan, District Engineer, 71 Frederick St., Binghamton (21F), N. Y.
Joseph J. Darcy, District Engineer, Montauk Highway at Little Neck Road, Babylon, N. Y.

Drawings and specifications may be obtained from Henry A. Cohen, Director of the Bureau of Contracts and Accounts, Gov. Alfred E. Smith State Office Building, Albany, N. Y., upon deposit of $5.00 for each set. A refund will be made in full to bidders for the return of one set in good condition within 30 days of award or rejection of bids; refund for all other sets in good condition, similar period, will be 50% of deposit. Checks shall be made payable to the State of New York.

CONTRACT MANAGER

Large Engineering and Industrial Building firm doing Nation-wide Business, has opening for qualified man to be Eastern District Contract Manager in New York Office.

Duties involved are development of new prospects and maintenance of good Sales Relations with all of our customers.

Applicant should be familiar with East Coast and adjacent territory, with experience in Sales, Design and Construction of industrial plants. Special emphasis on Mechanical and Chemical installations. Sales experience in this field not absolutely essential.

Education background should be Mechanical or Chemical.

Also a limited number of contract engineers positions, under the District Contract Manager, available.

If you have qualifications fitting these requirements please mail a complete record of your past experience, education and salary requirements.

P-713, Engineering News-Record
330 West 42nd St., New York 18, N. Y.

STRUCTURAL DRAFTSMEN AND DETAILERS

Excellent opportunities for structural draftsmen, detailers and checkers with experience in making shop drawings for buildings and bridges.

Apply

Employment Office
BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

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Positions open with South Dakota Highway Commission Plans Department.

Experienced men with ability in drafting, Final Plans preparation and Right-of-Way maps wanted.

Positions permanent for well qualified men.

Write South Dakota Highway Commission, Pierre, South Dakota, giving experience and salary desired, first letter.

WANTED

Structural Steel and Reinforcing Steel Designers, Draftsmen, Checkers, and Estimaters.

DES MOINES STEEL COMPANY
Box 956 Des Moines, Iowa

WANTED

GRADUATE CIVIL ENGINEERS

With or Without Experience
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Give age, experience, education in first letter.

G. T. McCOY
State Highway Engineer
Division of Highways
P. O. Box 1499
Sacramento, California

WANTED

ENGINEERS, STRUCTURAL, (2)

One for design and one for detailing reinforced concrete. Opportunity for right men with growing firm. Special construction methods covered by patents. Salary open. Write or phone:

VACUUM CONCRETE CORPORATION
4210 Sansom Street Philadelphia 4, Pa.
BARING 2-4545

WAR DEPARTMENT, U. S. Engineer Office, P. O. Box 1070, Nashville 1, Tennessee. Circular proposal No. 40-058-S-46-3 invites sealed bids here until 11:00 A.M. (C.D.S.T.), 5 August 1946, for the purchase of **U. S. Steamer Colbert** now tied up at U. S. Lock 2, Florence, Alabama and **Barge No. 105** now tied up at U. S. Lock 1, Florence, Alabama.

EMPLOYMENT

POSITIONS VACANT AND WANTED

(See following page)

POSITONS VACANT

STRUCTURAL DETAILERS: experienced in mill and office buildings and bridges. Permanent work with lots of overtime for good men. Summer Engineering Co., 239 Fourth Ave., Pittsburgh, Pa.

CONSTRUCTION SUPERINTENDENT: wanted, capable of taking complete charge of well point system dewatering, on project in mid-west. State experience and salary expected. March C. Walker & Son Co., 412 First National Bank Building, Santa Ana, California.

STRUCTURAL DESIGNER: for permanent position with consulting engineering firm in Dallas, Texas. Must be experienced in design of building frames for architects. Only thoroughly experienced and energetic men need apply. Conversational positions are already filled and none but serious workers need apply. Replying state education, experience, and references. Salary $400.00 per month. P-683, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

DETAILERS AND Checkers: structural steel fabricating shop experience only; vacations, overtime; Herrick Iron Works, 1734 Campbell St., Oakland, Cal

WANTED: TRANSITMAN and draughsman, Surveyor's office. Near New York City; P-696. Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

WANTED AN Executive Secretary for Contractors' Association. Must be experienced in membership, labor relations and legislative work. Apply in writing to H. B. Alexander, Box 653, Harrisburg, Penn. giving full details as to experience, also salary expected.

CONSTRUCTION SUPERINTENDENT. Thoroughly experienced in all types of construction work, expecially concrete. Full knowledge of layout and supervision. A-1 references and ability required. Excellent opportunity with long established Philadelphia firm. Give complete details. Apply by letter to Ralph S. Herzog, 1505 Race St., Philadelphia 2, Pa.

WANTED: STRUCTURAL Design man. Must know super-structures and sub-structures, and have working knowledge of vehicle and railroad bridge designs. Position is permanent. Salary to be discussed at conference to be held in Indianapolis. P-714, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

POSITIONS VACANT

FIELD ENGINEER familiar with cement mill practice and cement technology for technical sales service to cement manufacturers. P-715, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

WANTED: CHEMICAL Engineer. Research man familiar with the manufacture of lime and limestone products. We want a man familiar with the industrial uses of the product, and who is capable of developing new products and new methods of manufacture. Small growing concern, located in the East. Good starting salary with participation in profits of new developments. P-716, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SUPERINTENDENT: WANTED by a Philadelphia established Contractor capable of assuming complete responsibility on a State Highway Projects. Give references, experience and salary desired. P-717, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SUPERINTENDENT WANTED by a Philadelphia established Contractor capable of assuming full responsibility from bidding to completion on water and sewage disposal projects. Give references, experience and salary desired. P-718, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CHIEF ACCOUNTANT: experienced on Government Cost-Plus a Fixed-Fee contactors—wanted by Contractor for War Department CPFF Contract in Virginia. P-719, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

MASTER MECHANIC: skilled in construction equipment, needed at once. Excellent job for well-trained, experienced man. Send complete record of education and experience, stating date available and salary desired, to Byrne Organization, 2607 Connecticut Ave., N. W. Washington 8, DC.

WANTED: JOB Superintendent capable of erecting a million dollar factory at Poughkeepsie, N. Y. State age and experience. G. D. Campbell Bldg., Co., Inc. 39 Cannon St., Poughkeepsie, N. Y.

CONSTRUCTION SUPERINTENDENT: familiar with heavy duty concrete floors and cement toppings and the handling of several jobs. Able to travel. Write full details. P-720, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

BUILDING SUPERINTENDENT: wanted for work in southwest. Please send particulars, when available, and salary expected. Reply to Contractor, P. O. Box 7084, Dallas 9, Texas.

STRUCTURAL AND Mechanical design engineers and draftsmen. Must be thoroughly experienced in either field. Needed for industrial expansion program. Write Mathieson Alkali Works, Inc., Lake Charles, Louisiana, giving full particulars regarding experience, personal data, and salary requirements.

POSITION IMMEDIATELY available capable Purchasing Agent for General Contractor on Building Construction Army Field Fee Contract in Virginia. Apply P. O. Box 971 Newport News, Va.

ENGINEERING TEACHERS: State University in the East requires several young men, preferably returned veterans, with degrees either in Civil or Mechanical Engineering, to teach applied mechanics, testing laboratory, and drawing. Rank and salary commensurate with experience and training. Housing available. P-721, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ESTIMATOR: AIR CONDITIONING and sheet metal by well known Detroit firm. Must be thoroughly experienced. P-722, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

POSITIONS WANTED

SANITARY ENGINEER: Age 27, Lehigh graduate, advanced study, N.Y.U. hydraulic and airfield design 2 years with War Dept., Until recently, consulting sanitary engineer with USN, sup. CE, New York. On terminal leave as Lieut., CEC, USNR. R. B. Evans, 1 Birchwood Rd., Glen Rock, N. J.

CIVIL ENGINEER: graduate registered. 19 years experience in all phases of structural design including mechanical. Experience covers all refinery design, and all types of industrial, commercial, and Laboratory buildings. Conscientious and capable of assuming full charge. Interested only in a responsible job where ability determines the future. PW-704, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER: College graduate, age 32, registered, seeks position with future. 10 years design experience on concrete and steel structures for railroads, oil refineries, chemical and power plants. Prefer New York City or vicinity. PW-719, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEER: 20 years experience design, construction, surveys, graduate sanitary engineering course. PW-693, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

(Continued on page 38)

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CONSTRUCTION FOREMAN: Twenty-five years experience sewers, foundations, water lines, grading roads, concrete. PW-702, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SUPERVISING ENGINEER: age 39, C. E. graduate, 20 years broad and varied experience including planning, design and construction of all types. Have had full responsibility of organization and operation of many large projects. Interested in permanent connection with a future. Foreign work preferred. PW-723, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CIVIL ENGINEERING graduate; 38, single, veteran, 4 years personnel placement experience; 8 years field engineer on highway sewer and general construction work. Location immaterial. PW-724, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

RAILROAD CONSTRUCTION: General superintendent, fully competent to take complete charge of work from right of way to finished track, including bridges, buildings, and all that goes with the construction of a railroad. Small jobs not wanted, will go anywhere, but domestic work preferred. Now employed. PW-725, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CONSTRUCTION ACCOUNTANT: thoroughly experienced all phases accounting, purchasing and office management. Resume on request. Best of references. Southern location preferred. Box 11, 51 Randolph Pl. N. W., Washington 1, D. C.

EXPERT TRACER: and freehand letterer. PW-726, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

RECENTLY DISCHARGED veteran, with 20 years of worthwhile experience in construction, and maintenance, and sales wants a good connection with a conservative firm. Experience embraces pipe lines, terminals, roads, building, airports. Prefers west coast assignment. Can provide references. PW-727, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

CIVIL ENGINEER: 23 years shop and design drawings stress analysis bridges, buildings, pressure vessels and furnaces available 30 days 500 month. PW-728, Engineering News-Record, 520 N. Michigan Ave., Chicago 11, Ill.

EXECUTIVE ENGINEER: 12 years as consultant to industrial plants, 2 years as supt. of building construction and 4 years as supt. of plant engineering over a group of plants. Qualified exp. in labor relations, factory designs and layout, plant maintenance and building and mechanical design. Presently employed. PW-729, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

CONSTRUCTION SUPERINTENDENT: Available September 1st. Desirous of making a change. 12 years with one Midwestern Contractor, 20 years experience on industrial, plants, commercial buildings, well paint systems, pumpcrete and concrete plant layout. Handling complete projects. Following of good foreman. Age 46. Schooling equiv. to college. PW-730, Engineering News-Record, 520 N Michigan Ave., Chicago 11, Ill.

CIVIL ENGINEER: graduate, 28 years, married, two children, 3 years post-graduate work in structures, 6½ years experience preparation of specifications for and approval of design for air-conditioning and hydraulic equipment, supervision, recommending contracts, materials testing. Work terminated. Desire position with well established company, New York City vicinity preferred. PW-731, Engineering News-Record, 330 W. 42nd St. New York 18, N. Y.

ESTIMATOR: CIVIL Engineer, licensed, registered architect, 40 years experience in design and construction and estimating costs wishes to connect with a construction firm as an estimator. General contracting, building construction, docks, reinforced concrete bridges, sea walls, roads, sewers, etc. First class references. PW-732, Engineering News Record, 330 W. 42nd St., New York 18, N. Y

OFFICE MANAGER: Field, age 37, 15 years experience, full charge of field office. General contractors, cost plus and contract work. Present income $6,000. base plus. PW-733, Engineering News-Record, 520 N. Michigan Ave. Chicago 11, Ill.

PART TIME WORK WANTED

STRUCTURAL ENGINEER: registered, 12 years experience in buildings, rigid frames foundations, underground structures, etc. desires part time work designing, detailing, or checking. PTWW-706, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y

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